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ABSTRACT

This document consists of the 10 issues of "The Teaching Professor" newsletter published in 1991. This newsletter provides forum for the sharing of research findings, observations, instructional strategies, and opinions on subjects pertaining to college level teaching and college faculty. Multiple subjects are discussed in each issue and are often based on recent books. Among the subjects covered in issues 1 through 10 are the following: (1) a sampling of 56 good-teaching laws and discussions on learning communities and the harmony between students' and professors' goals; (2) ideas on teaching students to think; (3) the testing of accommodations for disabled students; (4) being vague as a teaching strategy, why students cheat, and teacher credibility; (5) using open-text and open-note exams, and teaching effects on student learning; (6) how a college education makes a difference to the individual, students' opinions about course evaluations, and some new ideas on college teaching techniques; (7) making the most of written feedback, and quality assurance in higher education; (8) ideas on making students think, and how to document teaching excellence; (9) excerpts from books concerning problems in teaching problem solving, cooperative learning, class-cutting, and students' thoughts on why learning groups fail; and (10) student self-assessment in higher education, and defining effective instruction. (GLR)

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The TEACHING PROFESSOR

Volume 5, Numbers 1-10
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The TEACHING PROFESSOR

Volume 5, Number 1 January 1991

Choosing Course Content

What content should be included in a course? It's often an agonizing decision made more difficult by the burgeoning amounts of information available and students' all too often declining levels of knowledge and preparation.

But the decision-making itself is not always as effective as it might be. It tends to be more hit and miss than systematic. Criteria might provide a useful yardstick against which to measure the propriety of new and existing course content.

Consider the following criteria, offered across several different dimensions, admittedly relevant to varying degrees, depending on course objectives, students, and instructor.

Philosophical criteria, defined as "theoretical, methodological and value positions" and illustrated by the following guidelines:

> "Content should be a means of enhancing the intellectual development of students, not an end in itself."

Professional criteria, defined as "explicit legal and professional requirements" which must be met before practice of the profession may begin, and illustrated by the following guidelines:

> "Content must provide the kinds of theoretical and practical experiences required" to pass entrance or certifying exams.

Psychological criteria, defined as the application of the findings and principles of learning theory to teaching, and illustrated by guidelines like this:

> "Content selection must provide opportunities to emphasize and to develop higher-level intellectual skills such as reasoning, problem-solving, critical thinking, and creativity."

Practical criteria, which relate to the "feasibility of teaching something" in light of existing resources, and illustrated by guidelines like this:

> Content selection should be "influenced by the availability of key teaching" resources, like library materials and computer equipment.

Student criteria, which relate to the student characteristics and are illustrated by guidelines like this:

> "Content should be matched to the intellectual and maturity level of students."

The use of criteria in content decision-making will not necessarily make the process easier — but it should make it better informed.

Criteria from: a chapter on curriculum planning (pp. 71-3) in *A Handbook for Teachers in Universities and Colleges: A Guide to Improving Teaching Methods* by David Newble and Robert Cannon (St. Martin's Press, 1989).

Learning Communities

A "trendy" new term is being bandied about in higher education — "learning communities." What are they? A recent issue in the Jossey-Bass New Directions for Teaching and Learning series answers that question: "Learning communities, as we define them, purposefully restructure the curriculum to link together courses or course work so that students find greater coherence in what they are learning as well as increased intellectual interaction with faculty and fellow students." (p. 5)

A variety of curricular structures are used to provide students that deeper understanding and opportunity to integrate information. A table in chapter two of this volume introduces and compares these various structures. From it we've excerpted descriptions of the structures and the units of instruction they employ, encouraging those interested in learning communities to consult both the table and rest of the volume for much additional information.

Linked Courses

"Cohort of students enrolls in two courses, frequently a skills course and a content course." Typically the two classes carry equal credit and the students receive separate credit for each of the linked courses. To some degree faculty coordinate syllabi and/or assignments. "Many courses are linked by the way the way one course logically builds upon another." Examples: writing or speech courses that use the content of lecture courses.

Learning Clusters

"Cohort of students enrolls in two, three, or four discrete courses linked by common themes, historical periods, issues, problems." Here, too, the classes are taken together, carry discrete credit, and are tied together to varying degrees.

Freshman Interest Groups

"Cohort of freshman students enrolls as a small group in three in-place larger classes and meet weekly with a peer adviser." In this case the classes are topically related, but autonomous, and students get credit for each. This particular model has the advantages of being economical (since the courses are already being offered) and providing freshmen an "immediate support system."

Federated Learning Communities

"Cohort of students and Master Learner enroll in three 'federated' in-place courses and participate in a content-synthesizing seminar." The master learner is a faculty member released from teaching and from a discipline other than those of the courses. The master learner is expected to fulfill all the academic responsibilities of students in the courses.

This model " 'federates' diverse courses around an overarching theme, and invites up to forty students to co-register and travel as a small group within those larger courses." Example: Topics in Management, American Federalism and Intergovernmental Relations, and Ethics in Management, plus the integrative seminar, Issues in Management and Business.

Coordinated Studies

"Multidisciplinary program of study involving a cohort of students and team of faculty drawn from different disciplines; taught in intensive block mode to a central theme." This model calls for the most radical restructuring of the curriculum, engaging both faculty and students "full time in interdisciplinary, active learning around themes." Example: Science Shakes the Foundations: Dickens, Darwin, Marx, and You, with disciplinary credit awarded in English composition, physical anthropology, the history of science, and economics.

Reference: Faith Gabelnick, Jean MacGregor, Roberta S. Matthews, and Barbara Leigh Smith. *Learning Communities: Creating Connections Among Students, Faculty, and Disciplines*. New Directions for Teaching and Learning, no. 41. San Francisco: Jossey-Bass, Spring 1990. ◆

A Critical, but Constructive Comment

Beverly C. Pestel, a contributor to *The Teaching Professor* (May 1990), writes in the "provocative opinion" section of the *Journal of Chemical Education* in June 1990 (p. 490): "We do not see teaching as a science, a discipline in its own right, complete with a developing body of knowledge supporting some teaching strategies and discouraging the use of others. Our perceptions of teaching as an art allow us to discuss the dilemmas we face in chemical education without having to feel the need to alter our own practices or update our own philosophies. If teaching is something that each individual perfects in his or her own way according to equally valid belief systems, then we are not required to question our beliefs or change our practices. This is a very convenient position to assume because it absolves us of any obligation to analyze our practices in the classroom."

Strong words .... Applicable only to those who teaching chemistry? We think not. Faculty in many disciplines ignore what is "known" and "being learned" about teaching and learning.

Pestel writes on. "Educational researchers design and conduct controlled studies. Because of the nature of the research, the controls are not as clean nor the data as clear cut as that in the physical sciences. But carefully interpreted and appropriately applied, the results of these studies are scientifically significant and valuable."

Whether teaching is an art, science, or both continues to be debated. However, if we consider it a science, that model forces us to consider the evidence. Pestel strongly recommends this spirit of scientific inquiry. "Our teaching practices require the same attention to the current research as do our laboratory practices, for each is a science in its own right." ◆

"The discovery of truth and its transmission to others belong together, and their joint exercise can afford satisfaction greater than either one practiced by itself."

— Joel Hildebrand, chemistry professor, U. of California-Berkeley

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In Class

Fifty-Six Laws of Good Teaching: A Sampling

by Herbert C. Friedmann, U. of Chicago

Always re-experience your subject; this way it will remain forever fresh, lively, and spontaneous.

Let your lecture be spontaneous, but do not improvise upon your knowledge.

Always start on time and stop on time.

Begin each lecture with an outline; a lack of vocabulary confuses a student less than a lack of expectation.

Never expect your students to learn or to understand anything that you cannot or did not learn or understand yourself.

Never snow a student under with an exhibition of your erudition: a student is far less interested in what *you know* than in what *he or she can learn*.

Do not be proud of knowing more than your students: they did not choose to be born after you.

Never equate ignorance or lack of knowledge on the part of your students with stupidity.

Do not memorize your lecture; just understand your material.

Do not assume that the mere one-time use of a word or idea "exposes" students to it: appeals to thought and to understanding require *substantiation*, not *intimation*.

> *"Never start fast and end slowly: this shows that you have exhausted your material.*
>
> *Never start slowly and end fast: this way you will have exhausted your students."*

Act out of the Conviction that Your Teaching Matters

Answer all questions from students the best that you can, since a given question rarely troubles only one person; a question is not an *interruption* but a *challenge* to funnel the answer into the rest of the lecture.

Never ask examination questions on topics that you did not ask students to learn.

Never tell students to be "responsible" for learning a topic: responsibility regards learning as a duty owed to others, rather than as a duty owed to oneself. The line between *obedience* and *self-esteem* is thin — but it is clear.

Never laugh *at* your students, but laugh *with* them.

Never make fun of your students, unless you wish them to make fun of you.

Always take your students as seriously as they take you.

Treat your students with respect, and they will respect you, and with politeness, for they will not confuse it with softness.

Look at the students when you lecture; the ceiling and the floor are not interested, and neither is the blackboard.

Never start fast and end slowly: this shows that you have exhausted your material.

Never start slowly and end fast: this way you will have exhausted your students.

Do not confuse *lecturing* with *dictation*: the former is a *creative* process, actively received and worked on by the student, the latter a *mechanical* exercise, passively recorded for later understanding.

Act out of the conviction that your teaching matters, even though you may not be able to prove this.

Intelligence is measured more by the *quality* than by the *quantity* of learning.

Do not expect that your students have an infinite capacity for learning: the limits of saturation of the mind are set more by physiology than by intelligence.

All "Fifty-Six Laws" were originally published in the Journal of Chemical Education, *Vol. 67 (1990), p. 14, and are reprinted with permission of the author and publisher.*

"The essence of good teaching is to adapt it to the particular context in which it is provided in such manner as to promote the student's inevitable search for meaning."

— Paul Dressel, *On Learning and Teaching in College*

Group Presentations in Class

In the interest of cultivating active learning, many faculty are turning to group work. Students participate in small groups with other students on some sort of project. In some courses they actually build something. In others they develop products or marketing campaigns for them. Sometimes they prepare a single, written report. In many other courses they prepare a presentation which they give in class.

Here are several suggestions for making the most of those in-class presentations.

***Limit* the presentations.**

On first hearing, that sounds counterproductive. The idea is to get students involved — and the pressure of having to present motivates mightily. However, if the class is large (say 50 students), each group has five members and is responsible for a 20-minute presentation, that's three class periods at least. Class interest may be high for the first three, but after that it declines, until everybody counts off the last three.

Solution: limit the number of presentations on any given day. Spread them across several weeks, a month, or the whole term. Limit the length of the presentations — and hold students tightly to those time limits. Time limits are not unrealistic. After all, how many of us get more than 15 or 20 minutes with the dean?

***Offer options* for the groups.**

Preparing and making a group presentation is a good experience for students, but so is preparing a jointly authored report, or constructing a visual representation of the project, or making an audio- or videotape. Spell out the options clearly and let the groups decide. If everyone still decides on the in-class presentation, the next time you may want to limit the number of groups who may select each option.

> *"Teach students about group presentations. If you've never done one before, you may not know what makes them effective."*

***Teach* students about group presentations.**

If you've never done one before, you may not know what makes them effective. Left to their own devices students (and other folks too) tend to divide the presentation into equal parts, assigning each group member an individual installment. Seldom are these individual chunks related to each other or made into a coherent whole.

Propose some alternative models: have some members present the larger group effort, while those not presenting prepare visuals or handouts. Stress the importance of practicing together before the presentation, in the interest of hearing what the others say and keeping within the time limits. Most basic speech textbooks include ideas and information about panels and other forms of groups presentations.

***Showcase* only certain group presentations.**

All groups prepare a videotape presentation which the instructor grades. Show the three best tapes to the class or have the three best groups make live presentations in class.

Use the presentations.

That is, try to encourage the rest of the students to learn from them. Include questions on the next exam that relate to content in the presentations. That motivates students to listen, but they won't necessarily be listening because they want to. Make reference to group presentations in subsequent lectures. At a later date ask students about material presented by groups. Use the expertise of particular groups to continue to inform and enrich subsequent discussions. Have students respond to some (or all) of the group presentations with short, in-class writing assignments — two-minute reaction papers. Share a selection of those comments with the group, maybe the class.

Like so many other instructional strategies, group presentations have great potential, but the benefits don't accrue just because the strategy is used. It must be used wisely and well. These guidelines should help.

Students' Goals — Professor's Goals: Harmony or Discord?

by Hossein Varamini, St. Norbert College

Is it possible that professors and students complain so much about each other because they often are not working toward the same goals? If so, how can we minimize the frustrations both sides feel when they discover that not everyone in the classroom is actually trying to do the same thing?

Perhaps acknowledging that such differences in goals and interest can exist would be a useful step toward controlling the frustrations. To this end I have constructed four typical classroom models which demonstrate the wide range of "givens" assumed by professors and students.

The Partnership Model

According to *Webster's New Collegiate Dictionary*, a partnership is "a relationship ... involving close cooperation between parties having specified and joint rights and responsibilities." In a classroom partnership, teacher and students cooperate and work hard to accomplish a set of goals. The harder each partner works, the better off all partners will be. Usually a (legal) document, like a syllabus, serves as a contract between teacher and students and specifies the goals and how to achieve them.

At first glance this partnership model may seem to describe the ideal professor-student relationship. Upon closer examination, that is not so.

- Professors frequently complain that the student partner doesn't contribute his or her fair share during the semester, yet expects a good grade at the end.
- Students sometimes complain that the partnership is not equitable. One party (the professor) defines the objectives, specifies what the other partner must do (course requirements), and decides on the manner of evaluating the other partner's contribution. Because professors have much more authority than students in the decision-making process, the students tend to feel less obligation to work for the success of the partnership.

The Customer Model

This model assumes that a college or university provides a service for which it charges a fee (tuition). Students choose to purchase that service, just as if it were any other kind of commodity. They have a right to expect good service for the price they pay. Consequently, it is incumbent upon the college to satisfy their student customers (or their parents).

If professors believe in this model, they should be sure to satisfy the desires of their customers for such things as clarity of objectives, organized presentations, fair evaluations, timely feedback, and so on.

However, this model does not exactly fit the conditions in academe. Consider for example, these two major differences:

- Professors cannot, and should not, provide everything their student customers desire — such as a grade the student does not deserve.
- In a typical business setting, the customer does not willingly accept only part of the service, but demands what he or she has paid for. In a college setting, on the other hand, students often suggest cancelling classes, leave early, cut class, and in general try to bargain for less than they paid for. In fact, some professors have to "force" students to receive the services they bought — establishing an attendance policy, scheduling exams right before or after holidays, etc.

The customer model may also be inappropriate because what many of the customers (students) are willing to buy is different from what the college is willing to sell. That is, students may feel that their tuition and their time are full payment for a degree, whereas colleges (hopefully) offer *education*, not merely *degrees*.

The Small-World Environment Model

According to this model, students believe "it's a jungle out there," implying that the real world is full of obstacles, challenges, and opportunities for which they need to prepare. They therefore decide to acquire necessary skills through "education."

In this view, colleges try to teach students not only how to *survive* in such a "jungle," but how to *succeed* in it. That is, the college provides a small-world environment in which students can learn about certain fields, sharpen their analytical skills, experience success and failure on a small scale, and prepare themselves to face real-life challenges and opportunities.

Besides ordinary teaching, professors perform such functions as counseling, coaching, and training the students in these small-world workshops. They also help students to identify their goals and to prepare themselves for entering the "real world."

Following are some conditions that prevent the small-world environment model from being successful:

- If teachers lack dedication, knowledge, and caring.
- If students' primary goals are inconsistent with the main thrust of this model (going to college to have fun or to enjoy one's freedom, for instance).
- If students have no clear-cut goals at all (suffering from the "I don't know" syndrome).
- If students are in college for the wrong reason (e.g., because their parents want them here.)
- If students are apathetic, lack motivation, or are immature.

The Utility Maximizer Model

Economic theory suggests that we all are *utility maximizers*, trying to achieve the highest level of satisfaction (or utility, as economists call it), given a set of constraints. We obviously need to work in order to reach our personal and professional objectives. We are, however, faced with a trade-off between how long we work and the amount of time left for all non-work-related activities, or "leisure."

Some of the important professional goals for a professor are earning an income, receiving tenure and promotion, staying marketable, and contributing to the overall objectives of the college. Leisure activities are fit into any remaining time.

Students also have their own goals for which they need to work, and they also require some leisure time (attending sports events, going out, partying, etc.) As "utility maximizers" they too know the trade-off between work and leisure, and they try to find a balance between the two.

Since "work" provides utility for teachers and students, if they both try to reach their own objectives, mutual satisfaction can be achieved. Before assuming that this is the right model, consider some tendencies that create problems for the smooth working of this model:

- Over time, some professors may work less (and have more leisure) due to external pressure, less interest in teaching, accomplishment of some goals, and so on.
- Students tend to lose sight of their long-range, lifetime goals and often get bogged down in shorter-range goals, like getting a good grade in a course.
- Students often become willing to forego some future success in exchange for more leisure time now.
- If students know that spending more time on a course will not raise their grade, they will spend the least amount of time they can on it. Consequently, they will work less and learn less in a course taught by a teacher who is an "easy grader."

Finally, it is important to remember that for both professor and students the trade-off between work and leisure depends on how hard they both work. That is why many professors try very hard to motivate their students to work harder — not just because it is good for the students, but also because it increases the professor's satisfaction.

A Question of Attitudes and Assumptions

The four models offered here might conceivably complement each other; that is, they are not mutually exclusive. For example, it is mostly a matter of emphasis as to whether one spends more or less work time or leisure time while following the partnership model, the customer model, or even the small-world environment model.

But I have tried to explore some attitudes and assumptions that both professors and students implicitly make when entering the classroom — and to show how they can be at odds with each other ... and therefore frustrating to all concerned. Perhaps a first step would be to engage in enough dialogue with our students so that we all know where each of us is "coming from."

Author's Postscript: I would like to express my appreciation to Dick Londo for the help he gave me in preparing this manuscript.

Ed.'s Note: This article originally appeared in the October 1990 issue of The Beacon, *an in-house newsletter published at St. Norbert College. It is reprinted with permission.*

> *"The great teacher* is the one who wants to become obsolete in the life of the student. **The good teacher** is the one who teaches lessons and moves on, celebrating the student's growth."
>
> — Jacob Neusner, *How to Grade Your Professors, and Other Unexpected Advice*

Beginnings and Endings

Beginnings and endings .... The academic life is full of them. Semesters end, terms begin; seniors leave and new students arrive. These regular and frequent starts and stops are at once the bane and boon of our existence.

One class ends ... with so little learned, so much given, and so little returned. The chemistry hasn't been right since the eighth week. They've been fighting every inch of the way. Everyone's tired, tense — and talking about nothing but grades. Sighs of relief can be heard around the room on the last day.

Another class ends ... with smaller sighs, smiles, and some sorrow. It's been such a good time. So much has happened. They've come so far. There have been connections: students with content, students with students, and best of all (at least from our perspective) students with teacher. And now it's over, prematurely and arbitrarily ended, with only memories attesting to its existence — a bitter but sweet conclusion.

One class begins ... with all the ground rules to establish, all the relationships to forge, all those desirable outcomes up for grabs, and all the anxieties of those first uncomfortable meetings. Will they like me, like my stuff? Can I ignite their smoldering, almost burned-out curiosity? How many will fail — and how much of that responsibility will rest at my feet?

Another class begins ... with all the bright hope of a new beginning. There is resolve, commitment, and determination. This could be the best class I've ever taught! Energy and optimism ripple around the room on the first day. The air is fresh — not really warm, but not cold either. Faculty and students sum up the feeling in a comment to their respective friends: "I think it's going to be a good class."

And so, with anxiety and hope, ... we begin yet again.

The
TEACHING
PROFESSOR

Volume 5, Number 2 February 1991

Teach Your Students to Think

Literature within our disciplines and in education in general continues to admonish us to teach our students how to think. As worthy a goal and strongly endorsed as critical thinking is, many of us struggle at the level of implementation — How?

Students don't "think" just because we tell them to. Moreover, they don't learn to think by osmosis, simply by being in the presence of academic content. So, we must teach thinking skills.

Perhaps we are hampered by our own lack of understanding. Do we know what thinking is? Yes, we know it when we see it, but can we describe it?

For example, take the familiar Bloom taxonomy of cognitive objectives:

Evaluation
Synthesis
Analysis
Application
Comprehension
Knowledge

We begin with knowing, factual knowledge, and move up through a variety of mental processes, each level requiring a more complex series of mental maneuvers than the previous. Somewhere near the top are objectives accomplished when learners "synthesize" ideas and information. What does it mean to *synthesize?*

Synthesis

"In simplest terms, synthesis is the putting together of parts or elements so as to form a coherent whole that is more substantial than its component parts," writes Philip H. Kelly in the published abstracts of the proceedings of the Eighth National Conference on Intellectual Skills Development (Western Michigan U., 1989).

He uses chemical reactions to illustrate what the definition means. "Consider the synthesis of hydrogen and oxygen to form water. We take flammable hydrogen and combustion-supporting oxygen and transform them into water, a liquid that neither burns nor supports combustion. To accomplish this transformation, we *ignite* a mixture of hydrogen and oxygen gases. The igniting causes a realignment of electrons and results in the creation of something quite unlike what we had with the two separate parts." He carries the analogy a bit further, asserting that the most exciting moments of synthesis involve a "flash" of insight not at all unlike what happens when hydrogen and oxygen gases are ignited.

Kelly describes three kinds of synthesis:

- *cumulation,* which occurs when multiple sources, expressing similar points of view, are drawn together;
- *distillation,* which, like cumulation, draws together what is shared in common, but from sharply divergent sources; and
- *merging,* which consists of joining two or more seemingly unrelated notions to create a new vision, and which Kelly sees as the most sophisticated kind of synthesis.

Kelly's sharp, clear distinctions should make the larger point. We can better teach students to think if we recognize that "thinking" itself is a high-level abstraction that needs to be broken down and apart for analysis. Then those component parts must be defined and operationalized, so that we can begin thinking about teaching thinking in terms of concrete classroom activities and events. ◆

Help

Many students in our classes need help, but all too few of them take advantage of what is offered. Or, if they do seek help, they wait until it's too late.

Yes, it is a student problem. We cannot force our students to accept help, in much the same way as we cannot learn for them. They must ask, must initiate the contact, seek the help. But are we doing all we can and should to encourage students who need help to seek it? Perhaps so, but an exploration of the issues may enable us to do a better job of empowering our students.

A number of students who don't seek help fail our courses. One would think that such a costly consequence would motivate students. However, Stuart A. Karabenick, who has studied help-seeking behaviors, identifies "costs" associated with seeking help, costs that for many students may be even higher than poor performance.

First, implicit in the need for help is a deviation from a powerful cultural norm. People in our society value individualism, represented in the ability to "do it yourself." When students go for help, they must admit to themselves and others that they couldn't do it on their own. In this culture men adhere to the individualism norm more closely than women, which explains the fact that male students seek help less regularly than female students.

Embarrassment may be another cost of seeking help. What will friends, parents, and teachers think? The fear, of course, is that they will think the student is inadequate, intellectually suspect, a lesser person. Feelings like these can be powerful deterrents to students, or anybody for that matter, who contemplates asking for help.

Karabenick points out that receiving help can itself become a "testing situation" which causes students to experience performance anxiety. During the help session they will have to divulge how much they do or don't know. The help-giver very well may ask still more questions the student is unable to answer. Once again self-confidence wavers and the fear of looking like a fool looms large in a student's decision-making.

Help Students Overcome the Obstacles

And so, how can faculty help students overcome these short-term "costs" in the interest of a long-term payoff? Again Karabenick offers helpful advice.

First, students must be encouraged to recognize when problems exist. They should learn to monitor their own learning, learn to recognize when they are really stuck, getting too far behind, too confused and frustrated. Part of that learning involves recognizing that comprehension difficulties are an inherent part of learning. It's when they become excessive that the student must recognize the need for help.

Feedback from faculty confronts students with the "facts" of how well they have learned the material. Students can be eternal optimists, both to themselves and their peers, when assessing their mastery of the material. Regular and frequent feedback in a course provides necessary (albeit sometimes depressing) encounters with reality.

Karabenick recommends we "encourage students to attribute the causes of their problems to factors they can control." (p.50) He points out that in most cases students do control their destinies, even though repeated failures may leave them feeling helpless. Faculty can intervene by helping the students put their poor performance in a larger context: "You are generally capable (or you probably would not be in college)" or "You may have a problem in this one specific area" or "Your problem is not due to uncontrollable factors" or "You may not have taken advantage of available help."

Finally, Karabenick points to studies which document that students are more likely to seek help from each other before turning to more formal structures. The problem, of course, is that fellow students are generally less reliable and "expert" than the formal sources.

However, faculty interested in using these informal mechanisms can make them more effective by making them semi-formal. For example, course study groups can be convened by the instructor, possibility facilitated by a student doing well in the course (who gets credit for involvement). The groups get study guides. They meet at regularly scheduled times. Similar structures can be built around student tutoring activities.

Reference: Stuart A. Karabenick, "When Students Need Help." ***The Journal of Professional Studies*** **(Winter 1990): 41-55.**

Would You Believe ...?

In the interest of keeping our individual educational endeavors in collective context, you should know that in 1988 you had 741,000 instructional colleagues in higher education. There will be 771,000 of us by the year 2000. During the 1988-89 academic year, our institutions spent $115.5 billion on higher education and they're projected to spend $144.4 billion during the year that ends the decade.

These and 208 pages of other interesting facts about education in America appear in a U.S. Government Printing Office publication (#248-791-00975), *Projections of Education Statistics to 2000.* It's $6.50.

TEACHING PROFESSOR

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Out of Class

Visioning Your Course: Questions to Ask as You Design Your Course

by Kathleen T. Brinko, Appalachian State University

Course quality depends upon the success of two activities: design and implementation. In *designing* a course, we articulate goals and plan activities to meet these goals. In *implementing* a course — the actual classroom teaching — we execute these plans, usually evaluating the success of the class as it unfolds. Needless to say, the more issues we raise and resolve in the design phase, the fewer problems we will experience in the implementation. The goal of this worksheet is to aid in the systematic design of the course so that you and your students will be free to focus on course content.

> *What are my course goals? What do I want my students to learn primarily?*

1. What are my course goals? What do I want my students to learn primarily?
   —Content (facts, applications, theories, etc.)
   — Skills (writing skills, library skills, computer skills, research skills, critical thinking, problem-solving, etc.)
   — Attitudes (appreciation for field/subject, global perspective, tolerance, etc.)
   — Other, or some specified combination of the above
2. At what level(s) do I want my students to perform?
   — Knowledge (ability to recall facts)
   — Comprehension (ability to understand ideas and translate them into other formats)
   — Application (ability to use ideas in particular and concrete situations)
   — Analysis (ability to dissect ideas into constituent parts to make the organization clear)
   — Synthesis (ability to integrate parts into a unified whole)
   — Evaluation (ability to judge the value of an idea, procedure, etc., using appropriate criteria)
   (*Note: Each higher level assumes the mastery of lower levels of performance.*)
3. What class activities will help my students meet these goals and levels?
   — Lecture
   — Demonstration
   — Debate
   — Case methods
   — Role-play
   — Games, simulations
   — Large group discussion/problem-solving
   — Small group discussion/problem-solving
   — Laboratory exercise/experiments
   — Programmed learning
   — Library research
   — Field research
   — Other, or some specified combination of the above
4. What support will I give to my students to enhance their success in meeting these goals and levels?
   — Administrative handouts (syllabus, course policies, etc.)
   — Content handouts (outlines of lectures, illustrative examples, tables, charts, etc.)
   — References, bibliographies
   — Models, demonstrations
   — Individual conferences
   — Practice sessions
   — Review sessions
   — Other, or some specified combination of the above
5. What assignments will I use to evaluate the success my students have had in meeting these goals and levels?
   — Exams, quizzes
   — Papers
   — Projects
   — Oral presentations
   — Performance of skills
   — Other, or some specified combination of the above
6. How much uniformity of assignments will best help my students meet these goals and levels?
   — Standardized (students have no choices)
   — Menu (students have choices from a fixed list)
   — Individualized (students have large range of choice)
   — Some combination of the above

7. What evaluation approach will best help my students to meet these goals and levels?
   - Summative, for grades and evaluation
   - Formative, for feedback
8. What evaluation unit for each assignment is consonant with these goals and levels?
   - Individual (each student works independently)
   - Small group (students work in pairs, triads, groupe)
   - Some combination of the above
9. What type of class atmosphere will foster students' success in meeting these goals and levels?
   - Competitive
   - Cooperative
   - Some combination of the two (in what percentages and how combined?)
10. What kind of participation will foster students' success in meeting these goals and levels?
    - Teacher, 95%; students, 5% (lecture with an occasional student question)
    - Teacher, 75%; students, 25% (lecture with some group discussion)
    - Teacher, 50%; students, 50% (teacher-lead discussion, as in a seminar)
    - Teacher, 25%; students, 75% (hands-on problem-solving)
    - Teacher, 10%, students, 90% (student-designed and -directed projects)
    - Some combination of the above
11. What policy for class attendance will foster students' success in meeting these goals and levels?
    - Mandatory and graded
    - Expected
    - Mandatory, but not graded
    - Voluntary
12. What pace of the course will foster students' success in meeting these goals and levels?
    - Fixed (no deviations from syllabus)
    - Flexible (accommodate to skills students bring to the class)
    - Some combination of the two
13. What criteria will I use to determine the amount of success a student has achieved over the term?
    - Achievement of preset goals (comparison with standards)
    - Achievement of norm (comparison with others)
    - Progress made from the beginning of the term (comparison with self)
    - Some combination of the above (how calculated?)
14. How will I calculate final grades for my students?
    - Percentage of work satisfactorily completed
    - Contracts made with individual students
    - Competency-based evaluation
    - Some combination of the above (in what percentages?)

What qualities do I expect my students to possess as they enter my class?

What behaviors do I expect of my students while they are in class?

What flexibility/contingencies have I planned in case my students don't meet these expectations?

15. What qualities do I expect my students to possess as they enter my class?

E.g.: Prerequisite content, prerequisite skills, appreciation for discipline/field

16. What behaviors do I expect of my students while they are in class?

E.g.: Willingness to participate in class activities, prompt and consistent attendance, prompt and consistent completion of assignments, responsibility for the participation of others

17. What flexibility/contingencies have I planned in case my students don't meet these expectations?

E.g.: Reprimands (what kinds?), additional coursework, adjustment of syllabus

18. How will I convey all of the above information to my students?
    - Administrative handouts (syllabus, course policies, etc.)
    - Content handouts (outlines of lectures, illustrative examples, etc.)
    - Introductory session to course
    - Pretest
    - Verbal and nonverbal cues throughout term
    - Other, or some specified combination of the above

Maps, Guides, and Making It Through a Course

by Jeffrey C. Levy, Seton Hall U.

I am an experimental psychologist by background, and most of the content courses I have taught for the past 18 years have been in the "hard science" areas of the discipline (e.g., learning, cognitive processes). These tend to be perceived by students as "dry," as much of the material consists of discussions of the procedures, rationale, results, and implications of laboratory-based experiments.

My teaching objectives include covering an appropriate balance of historical and current content, and providing the student with the essential skills to enter a psychology-related vocation or pursue graduate education (which the majority of our undergraduates eventually do). In addition, I attempt to foster a love for the discipline, a sense of inquiry, and the skepticism and methodological sophistication required to evaluate information from variable sources in order to arrive at a conclusion.

I once read a review which criticized the typical arrangement of materials in chapters and textbooks on physiological psychology. It was argued that starting with a detailed discussion of the neuron and working one's way toward complex systems was akin to trying to teach a course about airplanes by starting with a description of the structure and function of a screw.

I wonder if the same objection might be raised about any number of college courses. A course is a 15-week journey across space, time, and ideas. It helps to have a good map and a guide. The reviewer's comments highlight the importance of keeping the large picture (i.e., an entire map) in mind while focusing on a particular topic (i.e., one's present location).

From Concept to Practice

As an example of how I use this strategy to accomplish my objectives, I will describe the introductory lectures in my learning courses. On the first day I ask students to think back to when they were children and to try to recapture that sense of wonder characteristic of the young. We discuss differences between sciences and humanities, with an emphasis on the limitations (i.e., boundary conditions) of science as well as its strengths with respect to determining cause-and-effect relationships. I provide a historical review of the development of psychology as a unique discipline toward the end of the 19th century. The perspectives and methodologies of the structuralist, functionalist, gestalt, and behaviorist schools of thought are contrasted as we appreciate how our current approaches evolved. We discuss what it means to "explain" psychological phenomena and how learning is a type of explanation. An course overview describes how each of the topics fits within the total picture.

Hopefully, by this time the student has developed a framework within which to appreciate not only the subject matter of this course, but also the place of psychology within the context of the arts and sciences. I attempt to apply this "top-down" approach within each of the major topic areas and, where practicable, to individual lectures.

Returning to the travel metaphor, it is impossible to simultaneously view an entire road map and still make out the details needed for our immediate travel plans. I try to divide the map (course) into regions (topic areas) and these into our daily trips (lectures), keeping in mind where we are, where we have been, where we are going, and why we took the trip in the first place.

Seeing Our Content as Others See It

Sometimes the gap between those of us in the humanities and those of us in the sciences seems uncrossable. We don't think or talk alike. Our students don't like each other's courses or do well in them. Many of us don't like teaching introductory courses for non-majors; others of us make jokes about them. As members of the same academic community, as fellow scholars in pursuit of new discoveries, as educators committed to the communication of knowledge, we respect the integrity of each other's fields of study. But we just don't understand each other very well.

Perhaps we could do better. Sheila Tobias and Lynne S. Abel conducted an interesting "experiment" that helps to show how and why our content looks so strange to those outside it. In earlier work Tobias used the experiences of humanities faculty in short science courses to uncover what makes science "hard" and what science instructors might do to make their subjects more accessible. For this study, 14 Cornell U. science and engineering profs enrolled in a five-day seminar on the poetry of Chaucer and Wordsworth.

The authors' discussion of results offers interesting reading, but particularly fascinating are the comments of these "students." Rather than offering conclusions, we simply share a sampling here and encourage you to use them to consider how your content looks to students from other majors.

"Nothing on the board, no diagrams, no key words, no outline, no nothing. I found it very hard to follow a lecture that was just words and more words. What was most important? What was not? ... And the furious writing going on around me. What the hell did they [the other students] find to write down that was so interesting?"

"The Chaucer [book] looked like, felt like a text in science. There was an introduction, notes, guides, advance summaries. Best of all, the book starts with Section I and proceeds to Section II. The Wordsworth, on the other hand, comprised two full volumes of poems [printed] in no apparent order. And the first assignment was on page 127.

readings ..., the way they move from the local details in a single poem to the global picture of the poet's work .... We in science and especially in engineering rarely reflect on the global scheme .... Perhaps we suffer from a tyranny of technique."

"Scientific knowledge is structured like a collection of trees; the trunk of each tree must be conquered before the fruit can be eaten .... The field of literature is more like a meadow full of head-high bushes. You can get at the 'fun stuff' right away, with minimal preparation."

"The humanist seems to judge the value of, say, an interpretation of a poem not on the interpretation itself but rather on the defense of the interpretation .... Engineers cannot work that way. The size of a beam must be selected correctly. If not, the bridge may collapse."

"As a result of this experience, I feel less sure about my own treatment of engineering students. Do I really know how well prepared they are ...? Do they have the 'vocabulary' and the mathematical and mechanical 'fluency' I think they have?"

Reference: Sheila Tobias and Lynne S. Abel, "Poetry for Physicists." ***American Journal Physics*** **(September 1990): 816-821.**

Student, Thy Name Is Humility

by Clarice Stasz, Sonoma State U.

Any class begins with inequality. Even if the topic is totally new to everyone, some people will have a facility for picking it up more quickly. And usually the topic is familiar to some students, whose advanced standing is readily apparent.

When I took a short course on jazz techniques, I began with the attitude that I was a beginner, but it surprised me how quickly others' behaviors added to my insecurity the nasty implication that a beginner is "inferior."

"What are your songs?" a woman asked me. I didn't know. Although familiar with jazz tunes, I didn't "have songs." It was just a friendly inquiry about my repertoire, not meant to show her more advanced status, but it reminded me of my lack of knowledge.

Not "having songs" marked me later when we were asked to sing any tune, so the instructor could note what areas each needed to work on. That many others, like me, were trying to remember the words to something other than "Happy Birthday," which some sang, did not relieve the feeling of inadequacy. My musical memory bank, stuffed with both classical and jazz compositions, registered empty, stress having vacuumed it up. I held out from volunteering and was lucky " a music book appeared and the instructor allowed later singers to refer to it. Other strained faces showed my feelings were shared: despite the instructor's great care not to make comparisons, we were all making them, each of us pegging ourselves low.

We weren't being competitive with others, so much as upset with ourselves. How is it I couldn't call up a simple song, like "Tea for Two"? At lunch, we joked about our mistakes, bolstering one another's plummeting spirits.

Despite warm, generous, non-judgmental support from our teachers, we all showed nervous symptoms that week. The results were varied: hiding away, overeating, chain smoking, cutting a class, sleeplessness, compulsive practice, crying, feeling one was "losing it." Fortunately, most of the time we were too busy for these expressions to dominate, and we had a lot of fun despite these often self-induced pressures.

My worst moments came as my first solo singing performance approached. I had chosen a simple song, but kept mixing up the lines of the verse. I took a long hike alone in the redwoods to sing it over and over, but at rehearsals with the pianist kept blanking out or reversing the lines. In desperation, I asked one of the vocal teachers to listen to my practice. I got it right, but then told her of my fears. "Honey," she advised, "Use a cheat sheet! Do anything to feel secure during the performance." So for the show, I took a piece of cardboard, wrote the first word of each line in block letters, and placed it on the floor below the mike. I used it. When I told people afterwards, they looked at me in disbelief " further proof of the magic of theater.

If our students resorted to such devices, we would not consider them magical. Many of us recall the stress of school days and arrange assignments to reduce anxiety. I read an article about an instructor who let students bring to tests one 3 x 5 card with any information they wished written on it. Some of us design take-home or open-book exams. Out of school, after all, people seldom have to perform without assistance. Yet some topics require quick memory access to basic knowledge, and cheat sheets are not possible. I can't use an open-book system to test geographical knowledge essential to historical understanding. Thus one simply can't reduce all student stresses.

My experience suggests even the most supportive and empathetic teachers can't eliminate anxiety. Learning is growth is discomfort. What a thoughtful teacher can do, as I learned at camp, is reshape those feelings of humiliation into humility. When my instructor told me to use a cheat sheet, I knew from a passing inward look in her eyes that the advice came from her own experience, a day when she was losing the words. "Maybe that song isn't so easy," she was implying, "so do whatever you must to honor it — and don't apologize for being a beginner."

Correction

In our December 1990 issue we announced that *On Teaching* is available from the U. of Colorado-Boulder Book Center for $7.95. We neglected to mention an additional $2 charge for shipping. We regret any inconvenience to our readers and the bookstore staff.

The Teaching Professor

Volume 5, Number 3 March 1991

Building Rapport

There may be no time at which the rapport between instructor and students is more important than when the instructor tries to generate discussion. If an open and trusting atmosphere exists in the classroom, students will contribute to discussion. If that atmosphere doesn't exist, we have the proverbial pulling of teeth.

The desired atmosphere cannot be created explicitly, by a statement in class or a clause to that effect in the syllabus. It's created through action — what the teacher does when discussion occurs. As the authors of *Teaching at the Ohio State University: A Handbook* note, "Many students will test the waters to see how their ideas will be accepted." If the waters are cool, they won't plunge in, nor will their peers.

So, an instructor must build rapport. How? Authors of the handbook recommend that we be willing to share personal experiences, willing to admit uncertainties, open to new ideas, able to suspend judgment of others, able to listen carefully to others' statements, and tolerant of different points of view.

Good advice — but still rather abstract and difficult to translate into concrete actions. The handbook suggests *verbal cues*, such as these:

— Can you think of a situation in which this notion might or might not apply?
— That's an interesting idea. Tell me more.
— I don't know either, but that's a very interesting question. Can anyone help us unravel ourselves here?
— I'm not sure I understand. Were you saying that the survey questions were too personal? Can you give me an example?
— Feels to me like we've kind of strayed from the point. Have we?
— Let's not forget the basic problem we're trying to solve.

The handbook also suggests *non-verbal cues* that convey our interest and commitment to discussion:

— Show enthusiasm when listening to student responses, by smiling expectantly and nodding as the student talks.
— Keep eye contact with the student who is talking.
— Walk toward the student who is talking, even if there is space to take only a few steps in that direction.
— Walk around the room throughout a discussion, so that students will view people in different parts of the room.
— Look relaxed by leaning against the wall, sitting on a desk, or pulling up a desk or chair and joining the class.
— Arrange students' chairs in a circle or other configuration in which they can see each other talking.
— Stand by students who have not contributed. Proximity may draw them into the conversation.

Keeping Women in Computer Science

by James H. Bradford, Brock U. (ONT)

In recent years I have begun to notice more female faces in my Introductory Computer Science class. The course teaches the fundamentals of programming with an emphasis on individual practice. One of the goals is to put students from a variety of backgrounds on an equal footing with each other. Therefore, we assume no prior background in computer programming, and I have learned from experience not to assume too much background in mathematics or science either. Despite the combined efforts of myself and my tutors, approximately 90% of the women either fail or drop the course (the equivalent rate for men is about 25%). Something gender-specific seems to be going on!

It has been no easy task to diagnose the problem. I have long since eliminated gender-specific language from the lectures, where possible I have recruited both male and female lab demonstrators, and I have set aside considerable time for private talks with my students. None of these efforts affected the dropout rate to a noticeable degree, so I began to look at some of the differences in the way students behave in class.

One of the most striking differences was in the gender composition of the minority of students who participate directly in the lecture (primarily asking and answering questions). This group was 100% male. At first, I reacted by waiting longer before I selected a student to answer. I let the silence drag out a little until some tension developed. This approach was an unqualified failure. Not only did no women put up their hands, but about half of the men took their hands down.

My next idea met with better success. I started introducing small in-class exercises: I allowed single or group work, encouraged lots of chatter, and allocated no marks for the results. As the class worked, I circulated and initiated friendly contact with both individuals and groups. To avoid creating an impression of favoritism, I gave attention to both men and women, but I ensured that for each exercise I would chat with at least a few female students. I made it my goal to have some conversation with all of the female students as the course progressed.

This approach was surprisingly effective. Within a few weeks, the number of students that were actively participating had gone up enormously and this included more than half of the women.

Like many professors, I find that office hours are poorly attended and tend to focus on a small number of "regulars" rather than the class at large. Almost all of those regulars were male. To increase my accessibility to the rest of the students I tried to make myself available immediately after my lectures.

Five Minutes of Informality

I found that, with a little rearrangement of material, I was usually able to end the "formal" part of the lecture five minutes early. The last five minutes became an "informal" time when students were encouraged to ask questions about the lecture, assignments, or anything else. Chatting in a group with the professor at the end of class seemed much less intimidating to them than sitting alone with the professor in his office. Many more students took advantage of these sessions and about a third of them were women.

As this technique became a standard part of our routine, a new problem surfaced. Although gender balance has been improving, the majority of computer science students are still young males, and not all of them particularly well socialized. I found that the five minutes I could spare at the end of a class was not enough to give attention to all of the students that wanted it. As a consequence, a lot of aggressive maneuvering developed as students vied for attention. The behaviors included loud voices, interrupting other students, expressing disdain for the questions of other students, and aggressive body language (even including pushing other students aside). I privately dubbed this group the "primitives" — and I noticed that most females and quite a few males gave way to them.

Socializing the "primitives" presented a minor dilemma. It would be easy to exert authority to control these aggressive young men. But I felt this would present me as a bigger and more aggressive primitive and thus destroy the atmosphere I was trying to achieve. I settled on a strategy of good-natured insistence on proper social conduct (for example, "Hang on a second, I think she was first"). Sometimes I picked a woman to speak first, sometimes one of the more socialized males. In most cases, the women deferred to the "primitives" ("That's OK — he can go first") and the men did not.

I was concerned that my approach was not working the way I had planned, but fortunately I was rescued by a certain kind of group dynamics that was evolving among the students. Specifically, my general attitude seemed to be noticed by both the "primitives" and the class as a whole. The more highly socialized members of the class began showing their disapproval of primitive behavior (frowns, refusing to be pushed aside, etc.). The "primitives" too, seemed to understand the message, and before long I was free to choose the order in which I talked to my students. This allowed me to achieve a balance of attention between males and females.

I believe the benefits of making deliberate contact during class exercises and meeting informally with my students after each lecture have been twofold. On a subjective level, the class is noticeably warmer and more personal than the classes of previous years. On an objective level, there is much more participation and the class is more lively than I have ever seen it.

Perhaps most important, the women are joining in. They have become an accepted part of the class and no longer behave as if they were a group of outsiders intruding on a male preserve. I hope, as these techniques are refined in the coming years, that improvements in the societal aspects of my class will encourage more women to keep trying and to continue their studies in computer science. ◆

TEACHING
PROFESSOR

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Testing Accommodations for Students with Disabilities

by Joseph Rogan, College Misericordia (PA)

Students who are "disabled" do not like to be called "disabled students." They prefer to be called "students who are disabled." Their preference does not change the fact that they differ. However, it emphasizes that even with their disabilities, they can be fine students.

Most college professors can imagine what it would be like to be hearing-impaired, physically handicapped, or visually impaired. These disabilities and their manifestations are obvious. However, learning disabilities are invisible handicaps. As disabled as students with physical handicaps, students with learning disabilities seem normal, which makes empathizing with their conditions sometimes difficult.

Learning disabled students have, by definition, at least normal intelligence. However, deficient neurological systems make understanding or using spoken or written language difficult for them. Their difficulties are not usually remedied by more or extra coursework. However, given accommodations such as books-on-tape and readers for tests, these students can succeed.

> *"You may be asked to allow alternative teaching. Because of federal law, you cannot refuse to allow the accommodation.*
>
> *But you certainly can and should expect that the alternative administration of your test be handled professionally and with integrity."*

Students who are disabled, especially the learning disabled, attend college more regularly now. This results from several factors: the dictates of federal law, the success of special education programs, and because colleges are beginning to respect the abilities of these students.

Many colleges provide formal support programs for students who are disabled. They may, for example, accommodate certain disabilities by organizing alternatively administered tests. Disabled students take the same test as other students, but they might take it on an untimed basis, have it read to them, or have their answers scribed.

Federal Law and Alternative Teaching

Whether or not your college has a formal program, you may be asked to allow alternative teaching. Because of federal law, you cannot refuse to allow the accommodation. But you certainly can and should expect that the alternative administration of your test be handled professionally and with integrity.

What should you expect?

Advance Notice.

You should expect the support program which handles the needs of these students to let you know well in advance that alternative testing is necessary.

Test Security.

You should expect that your test will be secure at all times. You should place your test in a sealed envelope and expect that the test will be securely transported to and from the test site. It should arrive back in a sealed envelope signed across the sealing by the test proctor.

Timing.

Unless you agree to permit alternatives in advance, you should expect that untimed tests for disabled students will start at the same time as the in-class test. That way you do not have to worry about students sharing information with others who have yet to be tested.

Extra Time.

There may be some tests or test items which, because of their nature, should be completed within a specified period of time. In this case, you should expect that the test or specific items on the tests be timed carefully.

Breaks.

Unless you permit alternatives, you should expect tests to be completed in one sitting. If the length of time requires it, you should expect that students will be given reasonable permission to take in-room stretch breaks, to chat off-topic with the proctor, or to go to the lavatory. In the last case, you should expect that the trip will include no detours.

Proctors.

During an untimed test, you should expect that the proctor will not interact with students except to clarify non-topic terminology (e.g., words in directions) or to attempt to interpret typos or unclear language.

Test Readers — Directions.

If a student's disabilities require that the test be read out loud, you need to know how it will be handled. For example, will the proctor first tour the test with the student (e.g., a quick page-through)? Will the proctor explain to the student how the test is to be read? Proctors (after reading appropriate directions) probably should plan to read each test item once while the student listens and then read it a second time while the student tries to find the answer. If the student cannot find the answer, the proctor should allow the student to temporarily abandon the item. On a final pass through the test, items abandoned during the first pass can be reread.

Reading the Test.

During the read test, you should expect the proctor to read the test verbatim. You should expect that the proctor will be careful not to provide intonation or body language signals for what he or she thinks are correct answers. The proctor can ensure this partly by agreeing not to observe or in any way react to the answers chosen by students.

Answer Sheets.

Some students cannot independently and accurately fill in machine-scorable forms. You should expect that the students will be instructed to identify their answers on their test booklets and that after the test the proctor will transcribe their answers to the machine-scorable form.

"You should expect that you will feel sorry for disabled students. You shouldn't, but you will.

Do not let pity affect your grading. Students who are disabled deserve the grades they earn."

Essays.

Some students who are disabled may not be able to get their words into written form for essays. You should expect that their test proctor will ask them to create at least a "sketch" of the essay and then ask them to use the sketch to create the essay which they then will dictate to the proctor. In such cases, you might expect that the proctors will transcribe the essays exactly as they are dictated, read them back to the students, and then allow the students to make corrections by dictating changes.

Essay Editing.

Some of these students can write essays, more or less, but cannot edit their own work for spelling, penmanship, or grammar errors. In these cases, you should expect to have a clear understanding with the proctors. Will you allow the proctors to edit, i.e., to actually correct spelling, penmanship, or grammar errors? If so, you should expect that all editing should be made obvious.

Cheating.

Students who are disabled are not automatically honest. You should expect that the proctors will monitor the students' behavior throughout the test session. You should expect that the proctors will watch out for the usual crib sheets, etc., and be savvy enough to realize that spellcheckers can be used to find definitions and that calculators can be preprogrammed to solve problems. You should also expect to know how cheaters will be handled.

Grading.

Test accommodations like these allow disabled students to show whether or not they know the material. Once the accommodations are allowed, you should not be lobbied for additional adjustments. You should grade the tests of these students in exactly the same way you grade all other tests.

Pity,

You should expect that you will feel sorry for disabled students.You shouldn't, but you will. Do not let pity affect your grading. Students who are disabled deserve the grades they earn.

Forum Follow-Up: Extra Credit — Taking Sides and Offering Advice

In the October 1990 issue of *The Teaching Professor* we raised the issue of extra credit and described some of the trade-offs and dilemmas, then solicited your opinions and advice. As usual, you responded thoughtfully and helpfully, for the good of us all.

Pro:

I like to use extra credit, especially with my general education classes. I teach general zoology and general botany, as well as a basic environmental science course, all of which meet our general education requirements. Because of this, I have many students who lack a science background and really "fear" science. Terminology and classification are especially difficult for them, so I buffer those, somewhat, with extra credit opportunities. I see the extra credit as a reward for their additional effort — effort I feel helps them improve their understanding of the subject.

The extra credit works like this: About a week before a major exam, I make available work sheets over the topics being studied in that unit. To receive credit, each student must complete the work sheet and bring it by my office. At that time, we sit down together and discuss the work sheets; I quickly scan the sheets first and award them up to 5 points per page for completion.

The value to me is that I get to work one-on-one with my students; the value to them is the extra points, of course, but also some reinforcement and clarification of course material. Points are not given for those who just drop the work sheets in my mailbox. One rule is that the work sheets must be brought in no later than a certain time the day before the exam. Many times, several students come in together, but that is fine, too. The small group interaction is also valuable.

Donald Williams, Sterling College (KS)

In my course syllabus I mention that students *all* may have the extra credit option (this solves the problem of selectivity in offering the option), but they must contract for this by submitting a written proposal to me no later than six weeks into the course. (This solves the last-minute crisis dilemma.) After the sixth-week deadline, the offer is withdrawn.

I allow one letter-grade maximum credit (10%) for such things as two-day attendance at a national professional conference. We mutually negotiate for the credit and both sign a written contract. This provides "grade insurance" for those students who are anxious about grades and relief for me from those desperate students at the end of the semester who will "do anything" to earn a particular grade. Students have seldom abused the option in 10 years of offering it at the college level and many recognize the inherent fairness of offering it to everyone in the class.

Marley S. Barduhn, State U. of New York College at Cortland

Con:

College catalogs define grades in terms of quality, but extra credit encourages us to confuse *quality* with *quantity* as we tell the world about the quality of students' work. That world often complains that our students' work is not good enough for the grades we give. They aren't asking whether the students did lots of work or whether they worked hard at it; they simply say the grades are inadequate measures of our students' accomplishments, skills, whatever. When we give extra credit for extra work, we, in effect, do not even hear the intelligent world's complaints about our grading practices.

Karl E. Moyer, Millersville U. of Pennsylvania

As I see it, giving extra credit is a form of meddling with a diagnostic instrument. For me to raise a student's grade because of extra work sounds like a nurse altering a patient's vital signs on the chart because the patient is cooperative. The patient's temperature is what it is, and the student's performance is what it is. However inaccurately I may evaluate the performance, I don't want to rate a larger quantity of mediocre work equally with a smaller quantity of superior work.

I don't give extra credit at all; instead I find other ways to allow students to follow their own interests. Nearly every research project in my classes is negotiable. I assign a generic project which every student may do, but those with special interests may create their own projects in consultation with me.

In the same way, I leave reading lists open-ended. If a student finds a relevant book that interests him/her but isn't on the reading list, the student can nearly always get permission to review that book instead of one I have chosen. Students who are interested enough in the course material to customize their own assignments show increased motivation and performance.

Carl Bridges, Johnson Bible College (TN)

Formerly Con, but Now Pro for Various Reasons

There is nothing more frustrating than the student who does not do the assigned work and is always inquiring what can be done for "extra credit." My response, until recently, has always been, "Just do what I assign and do not worry about extra credit."

Since I teach accounting and my philosophy has always been that we learn by doing, I assign a lot of homework. The successful accounting student is the one who works as many problems as possible.

To encourage students to work problems, I have begun allowing extra credit for any problem solved that was not assigned. However, no credit for extra credit problems is given until all assigned problems have at least been attempted. Extra credit problems have to be turned in with the regular chapter work and will not be accepted at a later date. The students may use extra credit problems to take the place of future required problems that are not solved correctly.

Since I have adopted this system, I do not have students wanting to know what they can do "extra." "Extra" is really on top of the assigned work and helps to ensure success and to provide additional practice in areas of need.

Louise Holcomb, Gainesville College (GA)

For most of my career as a professor of physics and for most of the reasons usually articulated for opposing the idea, extra credit was never a part of my course policy. I wish to relate a recent softening of my hard line against the practice and the result.

It started two years ago as I was preparing for a new term teaching the physical science component of a core curriculum course. I was writing (or rewriting) the course objectives, one of which related to the stimulation of my students' curiosity for science and issues related to science. I realized that objective might be achieved by developing the habit of reading science sections of newspapers (like the Tuesday *New York Times*) and popular monthly magazines (like *Science* or *Scientific American*).

With this thought in mind, I introduced the Extra Credit Science Diary in my natural science course. Students are offered this extra credit opportunity on the opening day of class, when these basic rules are spelled out:

Immediately before (or just after) the end of each semester (in practically every course, I suspect) students will show up at an office hour seeking to know how they might improve their grade. Normally this course does not have an 'extra credit' practice. This semester, through the vehicle of an extra credit policy, I am using an idea that past students have found both useful and fun, the Science Diary. It is a ploy to encourage you to read more contemporary science material.

If you intend to take advantage of this extra credit idea, you must begin now and sustain the effort throughout the semester. You cannot begin at the 11th hour. Here are the rules and guidelines:

- Beginning today keep a small bound diary recording every article or book you read that has to do with science. Newspaper and magazine articles as well as science features are all appropriate.
- Record in your diary the title, author, date, source, and a few sentences of your personal comments for every piece you read.
- Each Thursday, at the end of class, present your diary to me. I will initial it and return it to you on the spot. You must be present on that day to receive my initial for that week.
- Near the end of the term I will ask you to prepare a short paragraph on this effort (topic to be announced later) and at the next to last class of the term you will hand in your diary for an extra credit grade.
- The maximum credit for the Science Diary is 10 points; your credit will reflect the quantity, steadiness, and quality of your effort as shown in your diary.

I then identify good sources for science reading and offer encouragement. Since the EC Science Diary was introduced, an average of 60% of each class has participated and the average credit earned has been 8.1 %.

Stephen J. Mecca, Providence College (RI)

Assorted Advice and Opinions:
The most important consideration in dealing with the matter of extra credit is prerequisites:

- Students receive early and regular feedback as to their grade status.
- Extra credit work must be determined before the end of the third quarter of the term and completed early in the fourth quarter.
- Extra credit presumes the existence of credit. It is allowed only for students doing satisfactory work. A student may not pass or raise a D by means of "extra" credit work since he or she lacks credit to begin with.

John P. Fogarty, Lenoir-Rhyne College (NC)

I personally agree with those professors who believe that extra credit gives an uneven advantage to the student who uniquely asks for it to improve a grade.

One method I have tried on occasion in courses in philosophy is this: allow students to broaden the basis of their grade by giving the option of doing various writing or critical reading projects. Allow them to take two written examinations, three written examinations, or just the final.

Each submission is evaluated. One B grade adds up to B. Five B grades still add up to B. Quantity does not alter quality. It meets differing projections and learning styles.

This gives no advantage per se. Each student may build as broad or narrow a base for the grade as he or she wishes (beyond the professor's required minimum — in my case, the final and one researched paper).

Paul D. Collord, Indiana Wesleyan U.

The comparison between current atti-tudes toward teaching and Victorian feelings about sex has been made. "We all know that people are doing it, but we don't want to see them doing it, and we don't want to talk about it."

— Michael Arbib, in "Alternative Faculty Reward Systems," *Improving University Teaching*, 1975, p. 293

What's in a Word?

It's a word familiar to us all — *university*. But where did that word come from and what does it mean? Lindsay Desrochers and Don Detmer offer some interesting insights into its etymology. "For centuries, the university has existed as one *(uni-)* place where those persons interested in becoming educated *(-versed)* could be exposed to all that was known."

Then they make a critical point. "Those days are gone. Today, the knowledge base is so large and the pace of discovery so rapid that no one university can house all knowledge within its walls. Derek Bok tells us that it took the Harvard University library 275 years to amass its first million books. Harvard acquired its latest million volumes in only five years."

This rapid growth of knowledge has implications for instructors. "To teach with integrity in today's university, professors can no longer simply teach what is and what has been. Instead, they must admit, 'Here is what I know about my subject today. New information is nearly certain to come to light tomorrow.' Teaching in the modern university means searching — the constant search, by professors and students alike, to create and keep up with new information that can be converted into transferable knowledge."

Desrochers and Detmer contend that "search" really is a better term than "research" to describe the "principal" activity of our universities today. And because this change of purpose is so dramatic, they propose an interesting (albeit not terribly elegant) change in nomenclature. "We propose ... the unisearchity as a single place *(uni-)* where the *search* for knowledge is fast-paced and constant, where all are learners, and where all types of people, cultures, and value systems are recognized and esteemed."

From: Lindsay A. Desrochers and Don E. Detmer, "From the Ivory Tower to the Unisearchity." *Educational Record*, Fall 1990, pp. 8-14. ◆

Follow-up on Crib Sheets

The Teaching Professor *suggests various instructional tips, techniques, and ideas. It's encouraging when you tell us you try them — but close to inspiring when you try them* and *try to assess their impact* and *share your experience.*

In our June/July 1990 issue, we offered an idea from Jules Janick, the legal crib sheet. Wilfried E. Rauser, at the U. of Guelph (ONT), tried the idea and reports how his students responded. We think he's learned something important. Even good ideas have mixed results, which further documents what we already know — students learn in very different ways.

I used the legal crib sheet in Introductory Botany this past fall semester. I allowed one side of a single 8" x 10 1/2" piece of paper for each of the two term examinations and the final examination. I inspected the crib sheets and returned them. The end-of-course evaluation contained the following item:

"This is the first semester that a legal crib sheet could be used in Introductory Botany. Would you recommend that future classes in this course be allowed to use a legal crib sheet?

A. Yes, because it helped me gain an understanding of the material for use in the exam.

B. Yes, because it allowed me to organize the information for quick reference during the exam.

C. Yes, because it provided reassurance during the exam even though I hardly used it.

D. No, because it shifted the exams towards understanding and application rather than recall of information.

E. No, because it was of little help during the exam, it gave a false sense of security."

255 students out of a class of 263 responded to the question. The responses to the above item were: A-22%, B-16%, C-33%, D-8%, and E-21%.

Students Share Their Insights

Some students commented on the legal crib sheet:

(A) "Preparing the crib sheet helped me thoroughly understand the material and also gave me the reassurance in the exam even though I did not need to reference it a lot."

(A) "Without the crib sheet I don't know how anyone would learn all the information needed for the exams."

(A) "I think the crib sheet was very useful. It helped me to understand the material I needed to know, provided reassurance, and allowed me to organize the information for quick reference during the exam."

(E) "I felt the crib sheets were nothing but a hindrance. I went into each exam well prepared and still did not do well. The crib sheets allowed a harder exam to be set, but was of no use to me in order to compensate this."

(E) "I would rather have had no crib sheet, gave false sense of security."

(C) "Crib sheet was useful because I was able to spend more study time understanding material rather than memorizing terms I will probably soon forget."

(B) "I like the idea of having a crib sheet — it got me to *understand* the info taught as opposed to memorizing it."

(C) "Crib sheets were a helpful way to prepare for exams and reduce pressure of examinations."

(D) "With the crib sheet, there was no need for understanding and/or memorization."

In my own defense, I did not make the examinations harder because of the crib sheets. I was made aware of the false sense of security through conversations with students. Students frequently mentioned them as contributing to poor performance. A student who was having difficulty in the course said that she could not use the information on the crib sheet.

I don't know whether I'll use the legal crib sheet again. It appears to have been a mixed success. ◆

Forming Groups

Interest in having students participate in group work continues to grow. As more faculty try to incorporate group activities, questions emerge.

For example, what about forming groups? Should you let students organize on their own? Or should you randomly assign students to groups? Should you try to form groups based on class performance? Or should you identify group projects and let students sign up for those that interest them?

As with any educational strategy, there is no right or wrong way: it's an issue of balancing aims and objectives against strengths and weaknesses. However, most of our ways of forming groups tend to be rather ad hoc, not carefully considered. We thought you might be interested in one instructor's efforts to approach the composition of groups systematically and then assess the effects experimentally.

Thomas E. Muller, a faculty member in business at McMaster U., has his students fill out a questionnaire. Muller designed the questionnaire to capture "project-relevant" aspects of a student's background. For example, he asks students about the extent of their previous experiences in other classes where case studies have been used. He also asks them to assess certain skills which will contribute to the success of this project, like their experience/skill in making formal presentations to the class. His 12-item instrument can be completed and scored quickly.

In the study, Muller assigned students to groups based on their scores. In a class of 82 students he formed 16 groups. He first assigned, one to each group, the 16 students with the highest scores. Then he assigned the next 16 highest students, one to a group, putting those with the lowest scores in the highest score groups. After that he calculated an average cumulative score for each group and followed the same procedure, placing the highest-scoring students in the groups with the lowest cumulative scores. In this way Muller was able to create "balanced" groups.

He then compared student assessments of their experiences in these balanced groups against the experiences of students in randomly assigned groups. He reports that the balanced groups felt slightly more satisfied with and challenged by the group and shared the work load more evenly.

In his conclusion, he offers further justification for this method of forming groups:

"Most group projects require a considerable background of course prerequisites, analytical insight, problem-solving skills, communication ability, and possibly work-related experience. Yet, there are often important interstudent differences in such skills, experience, and confidence. It makes sense for project groups to be formed with reference to a student's background in order to achieve a balanced distribution of student skills among individuals within a group by mixing less experienced students with more experienced peers."

Reference: Thomas E. Muller, "Assigning Students to Groups for Class Projects: An Exploratory Test of Two Methods." *Decision Sciences Journal*, Summer 1989, pp. 623-634.

Note: This article includes the author's questionnaire, which can serve as a model to faculty interested in constructing a similar instrument.◆

A New National Center

Please note that the editor has a new address (p. 2). This is because she has a new job. She's still at Penn State, but now in the Center for the Study of Higher Education. Penn State and a group of institutional partners including Syracuse, the U. of Illinois-Chicago, and Northwestern, recently received a $5.5 million five-year federal grant which establishes at Penn State a National Center on Teaching, Learning and Assessment. The editor will be an associate director of that grant project.

The Center has proposed an integrated, action-oriented, comprehensive research program focusing on factors that facilitate or inhibit student learning. Those factors will be studied in four areas: effects of the curriculum, effects of in-class (or instructional) experiences, effects of out-of-class experiences, and effects of the institution itself (be it a two-year commuter college, a mid-sized residential university, or some other kind). The research team will use both quantitative and qualitative methods.

Of particular note is this Center's commitment to action-oriented research, research that makes a difference. So often educational research seems removed from practice, irrelevant and difficult to apply. We are committed to studies that have practical implications, to analyzing and describing instructional policies and practices that affect student learning, and to listening to those in the trenches who will tell us what they need to know about how students learn.

Expect to read more about the activities of this Center in *The Teaching Professor*. We may from time to time include special inserts highlighting our work, make you aware of some of our publications of special interest and use to faculty, and solicit your input and ideas.

Please continue to correspond with the editor. Your ideas, input, responses, and requests make a vital contribution to *The Teaching Professor*.◆

Correction

In our January 1991 issue we printed a sampling of "56 Laws of Good Teaching" from the *Journal of Chemical Education*, May 1990 (vol. 67, no. 5), p. 413 — not p. 14 as we indicated. We apologize for the inconvenience.◆

The TEACHING PROFESSOR

Volume 5, Number 4 April 1991

The Global Village in the Classroom

by Jon Wergin and Denise Jahna, Virginia Commonwealth U.

One goal of faculty should be to respect the differences among students without stereotyping them. The following strategies will encourage both faculty and students to monitor their classroom behaviors and to work toward a positive understanding of all cultures. Individual faculty might:

- become as familiar as possible with the ways in which diverse cultural backgrounds might affect students' performance in the classroom. For example, knowing that sustained eye contact is a mark of disrespect in some Asian and Hispanic families can be a clue towards better interpretation of that behavior, and can help broaden the repertoire of possible responses to it. Of course, it is impossible to be thoroughly familiar with the myriad cultural norms in our society; but simply acknowledging the limitations of one's own background and perspectives can set a healthy tone that students will appreciate.
- question the implicit assumption that what differs from the norm is necessarily less valuable. If we ourselves do not appreciate the strengths we can draw from multicultural perspectives, we will have a hard time communicating the excitement and challenge of learning about them to our students.
- encourage debate and discussion of ethnic-sensitive topics and create a climate that allows students to express their views, even if others in the class might find them offensive. Stifling expression will open few minds. As one observer notes, "It is difficult to challenge ideas we don't like if we drive them underground."
- help students progress from an elementary stage of awareness in which they learn about the individual contributions of ethnic minorities within the dominant culture (such as "notable black writers in American literature") to a much more sophisticated awareness of how these perspectives have implications for looking at the discipline itself. For example, how does the study of black, native American, or Hispanic writers suggest diverse ways of discriminating "great" literature from the merely pedestrian? Is the very concept of "great" literature just another tic of Western competitiveness?

Reprinted with permission from *VCU Teaching*, Fall 1990, p. 19.◆

Being Vague as a Teaching Strategy

Ed.'s Note: In our December 1990 issue, we included a summary of research on "vagueness" that defined the word in terms of certain verbal behaviors and gave some indication of how often (as measured by these behaviors) we were being vague. Implicit in the discussion was that maybe we are vague too often, too much.

A number of readers objected to that sense. Two particularly thoughtful and reasonable responses follow. We suspect this is yet another instance of needing to strike a delicate balance, in this case between too much obfuscation and too much clarification.

Involve Students More Actively

Philip E. Johnson of the U. of Phoenix, Tucson, shares his concerns in this thoughtful letter:

The more I think about the topic, however, the more I am convinced that there is an argument on the other side of the coin. I never thought I'd find myself arguing against clarity, but the article has stimulated much thought on my part.

Clarity is indeed crucial and highly desirable in a *presentation*. And in the author's defense, this is undoubtedly the only kind of teaching to which he refers. One senses a flow of factual information from professor to student, as in the old joke defining a lecture as a method of getting information from the professor's notes to the students' notebooks without going through the minds of either.

With the world changing so rapidly, however, the mere transmission of already known truth — about which one can and should be clear — is a long way from the totality of our teaching strategies.

I read recently that a full third of the information accumulated by a student in medical school is obsolete on graduation day. It has also been said that the amount of knowledge available to humankind is doubling every five years. (Vague ideas, incidentally, not with the clarity and precision prescribed, but ideas that nonetheless seem relevant to educators.) What are the implications of this rapid change for teachers? Perhaps we should be helping students to be *learners*, not only *learned*.

I seem to learn better in the presence of a more tentative teacher than a 'clear' one. Not a wimp, mind you, and not someone passive or dull, but someone who can comfortably say, "I'm not entirely sure, but it seems to me that ..." or "My experience is .... What's yours?" The tentativeness allows me to make my own experiences part of the formula, to help me move to the position of co-learner rather than sponge. I then process the ideas rather than simply try to take accurate notes. I certainly feel better about myself as a learner. I become more actively involved in the topic, more thinking to myself, "What is *my* experience with this idea? Does it square with the professor's or is it different? What does it mean to me?" Perhaps if I were learning algebra I would not be saying this, but in most of the topics we deal with in a university, there is plenty of room for discussion and interpretation, for consideration of the views of the learner.

As a teacher, therefore, I'm going to limit the advice of the article to be 'clear' to situations where I am simply presenting already known truths. But I will also try to make those situations the exception rather than the rule. I'll ask my students' opinions, help them to be involved in dialogue rather than simply buying (or not!) whatever pearls of wisdom fall from my 'expert' lips. (I'll probably make even more than 2.18 vague statements per minute. Maybe 2.19!)

Make Students Comfortable With Uncertainty

Rita P. Sakitt of Suffolk County Community College (NY) writes:

"As a sociologist, I find myself *deliberately* being vague in order to point out to my students that their preconception of a black/white universe is not as helpful to understanding human behavior as would be a view which recognizes a continuum of values.

When I started teaching sections of the introduction to sociology course that are designed for students with weak language skills (they meet for a 50-minute period in addition to the usual two 75-minute periods per week so we can take more time to cover the same material as the 'Turbo Soc' sections), I realized the need for this approach. Most of my students are white, lower-middle or upper-lower class, and not learning-oriented. They are in college because there is not much beyond Burger King available to them and they think a degree from a community college will make them wealthy, successful, popular, and thin (that is, they are unrealistic). In addition, for whatever set of reasons one chooses, their academic skills are woeful. So it did not surprise me to discover that they tended to think in absolutes.

Since so much of the sociological literature, even as weakly as presented in most introductory textbooks, is probabilistic (or if definitive, then about esoteric or intensely narrow areas), my students have difficulty comprehending the uncertainty involved. It is to increase their comfortableness with uncertainty that I use repetition of vagueness as a device.

By the end of the 15-week semester, they begin to ask 'what if' questions of their own; they grasp the complexity of relationships that consist of more than two variables; and they sometimes even interrupt as they ask about something, to answer it for themselves. This sense of 'taking charge,' of 'thinking through,' or whatever one might call it, is as important for these students as an understanding of basic sociological concepts and theories. I really am proud of what they show they can achieve, when the framework or environment is conducive.

So that's why I frequently use vague terms and make vague statements of relationships: to allow them to explore and come to grips with ambiguity within a safe, precise structure.

"The canned lecture is to learning what rust is to metal. It disturbs and undermines the integrity of the vital substance."

— "The Nine and a Half Commandments of Good Teaching" by Robert A. Ferguson, in *Teaching at Chicago*, 1990, p. 7

TEACHING PROFESSOR

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Students Cheat — Why?

In this publication we regularly and routinely revisit issues surrounding academic integrity. We must. In many respects academic integrity is the heart and soul of the learning enterprise. If it's compromised, the whole endeavor is at risk.

As we have reported in previous issues (January 1990, July 1987, June 1987), cheating is far more widespread than we might like to admit. Why do students cheat?

Perhaps reviewing the reasons will increase our commitment to solutions. A short but pithy booklet published in 1986 by the National Association of Student Personnel Administrators, "Issues and Perspectives on Academic Integrity," lists six of the most frequently cited reasons.

- Students don't define academic dishonesty the same way faculty do.
- Students don't think it matters how much they learn. Or they "believe that what they learn isn't relevant to their future career."
- "Student values have changed." They are now motivated to succeed at all costs. They care more about financial security, power, and status and less about altruism, social concerns, and learning for the sake of learning.
- Students cheat so that they can improve their grades. They need good grades in order to gain admission to certain popular majors, as well as prestigious graduate and professional schools.
- "Students are succumbing to frequent temptation. Faculty members are careless about securing examinations or proctoring exams. Faculty members frequently repeat the same assignment or examinations."
- "The risks associated with cheating are minimal." Many students don't get caught. Those who do aren't punished severely. Many times faculty members avoid using campus disciplinary procedures and simply give a lower grade to students suspected of cheating. When this happens, those with a long history of academic dishonesty are treated no differently than first-time offenders. ◆

"Student values have changed." They are now motivated to succeed at all costs.

They care more about financial security, power, and status and less about altruism, social concerns, and learning for the sake of learning.

Credibility

by Loren Dickinson, Walla Walla College (WA)

I've taken a number of informal polls of undergraduate student groups since 1985. The question is always the same to each group. "When you think about the most credible college teacher you've had," I asked, "what marked them?" I'll offer a short definition of credibility and then cite their two most frequent responses.

Credibility typically but not exclusively deals with how competent, trustworthy, and attractive a person is perceived to be. The students I polled seemed to be familiar with these traits. In fact, the trait that ranked the highest was this: Credible teachers "know their stuff." I felt heartened by that.

The second highest is "and they put it over in a coherent fashion." As a speech communication teacher, I now felt even better. My bias, in fact, is that when credible teaching transpires, it's often because good communicating is taking place. *Teachers, beyond all argument, are major communication agents.*

What, then helps us "put it over in coherent fashion"? My answer is to offer a few uncomplicated strategies — reminders, really, of how good classroom communicating transpires. One is to vary our linguistic strategies. Adjectives, adverbs, transitions, and rhetorical questions all help. For many instructors, those don't occur easily without some planning.

Another is to use the conversational mode or style. What characterizes the conversational style? Using personal pronouns, verb and pronoun contractions, perhaps sentences containing understood parts of speech, idiomatic expressions, rhetorical questions, and short sentences.

The preceding sentence wasn't short. It contained, in fact, 21 words — too many for good oral comprehension. That suits *written* messages but not *oral* messages. Many more than 25 words and comprehension suffers immediately, some studies say.

But the hallmark of the conversational mode is conversational vocal style. This means using ample vocal force, tonal or pitch variety, and high fluency. Each of those delivery components, incidentally, has been carefully researched. In most cases each helps enhance a presenter's believability. But most crucially, classroom communicating should exude a feeling that *one is holding a warm and animated conversation.*

It's a sense that you're talking to the entire group much as you would *to one or two students* in an energized dialogue. Speech people simply call it the conversational tone of voice. Not stilted, not sonorous, not patronizing, not humdrum. An *animated* conversation.

In three decades of college teaching and peer review, I have not yet seen an instructor accused of being overinvolved in the subject. Many, in fact, suffer from underinvolvement. I conclude that the students I've been polling are right. It's essential to know our stuff — and it's fully credible to "put it out in coherent fashion."

Barn Raising, or How to Conduct a Seminar

Instructional metaphors continue to be of interest to this newsletter's readers ... if the number they send the editor is any measure of interest. Michael Kahn shared one which is the subject of a article he co-authored with Don McCormick.

"In frontier America when a family needed a barn but had limited labor and other resources, the entire community gathered to help them build the barn. The host family described the kind of barn it had in mind and picked the site. The community then pitched in and built it. Neighbors would suggest changes and improvement as they built." (p. 17)

> *"It seems intuitively clear that a seminar ought not to be a question-and-answer session ....*
>
> *It should be conversation among the students ... " in which the whole group joins in "building," making something of an idea.*

McCormick and Kahn use the metaphor to describe a way of thinking about and conducting a seminar. The metaphor evolved out of their efforts to better understand seminars, which they see as a "puzzling phenomenon." "It seems intuitively clear that a seminar ought not to be a question-and-answer session, though often it is. Conversely, the implication is that it should be conversation among the students in which the participation is widespread and the teacher is just another participant or ... facilitator of the discussion. But what sort of conversation?"

The barn raising metaphor offers one answer to that question. It's a conversation in which the whole group joins in "building," making something of an idea. Individuals abandon ownership of ideas. "You are not the lonely defender of [an] idea but part of a task-force whose job is to develop it to its fullest potential, to make the best possible case for it."

Obviously this approach doesn't work very well in groups where decisions must be made. At some point, the relative merits of different ideas must be discussed. However, as McCormick and Kahn point out, many classroom seminars function principally as idea groups. For example, in a lit class where the groups consider whether or not Hamlet is mad, no one notes or even remembers what a group of students decides. "It is ironic how rigidly trained we have been to squander that freedom and argue ideas as though we believed a decision had to be made." (p. 18)

Implicit in the barn raising metaphor are notions of cooperation and collaboration. These seem reasonable goals for classroom groups ... possibly more reasonable than the competitive outcomes that seem the result of many spirited, confrontative exchanges in groups.

Reference: Don McCormick and Michael Kahn, "Barn Raising: Collaborative Group Process in Seminars." ***The Organizational Behavior Teaching Journal*****, 7 (4), 1982, pp. 16-20.**

The Classroom and the "Real World"

by Michael P. Nofz, U. of Wisconsin Center-Fond du Lac

Paul was, in many ways, a model student. In a course on American minorities, he did well on exams, verbalized theories of prejudice accurately and concisely, and showed a sound understanding of textbook material. So it came as a revelation the day I overheard Paul telling a blatantly racist joke outside of class. His response to my concern: "No real harm meant. Just a joke — like you hear all the time."

Sue, a top student in a marriage and family course, came to my office seeking advice. "My boyfriend says he no longer wants to go out with me. And I thought we were moving towards an engagement. What can I do to make him change his mind?" This, after Sue impressively described the dynamics of emotional commitment on a recent exam. The idea of "mutuality," so important in class discussions, seemed to have vanished altogether in the midst of her personal crisis.

Different actions from two different students. But they suggest a common perception of the world of the classroom. Both students have established a sharp compartmentalization between what goes on in their courses and the world of their personal experience — or what they might term the "real world."

These anecdotal observations parallel more general findings. In his book, *To Know as We Are Known*, Parker Palmer summarizes a Carnegie Commission study. When college students were asked questions about the future of the nation, they responded with pessimism. They saw a lack of political leadership, an erosion of traditional values, and an inevitable worsening of major social problems. Yet these same students, when asked to speculate on their own personal futures, painted a very rosy picture: a good job, a stable marriage, and general satisfaction with life.

Is It All "Academic"?

What can we make of these seeming contradictions? Are they just evidence of sloppy thinking? Or do they suggest that course content is becoming quasi-fictional in our students' minds? It is possible, perhaps probable, that their pessimism merely reflects how students think they should think, as the products of their classes. Their thinking about the world of personal experience may be altogether different.

It can be illuminating to look through the eyes of our students. For many, the typical classroom reinforces a feeling of remoteness. The knowledge conveyed there is seen as legitimate, and at times even interesting, but with little or no bearing on what goes on once they walk out the door. While such goals as appreciation of ethnic diversity and critical thinking are laudable, we may need to ask the tough question: To what extent do they carry over to non-academic contexts?

My own experience has shown that many students are privately grappling with profound questions about their lives, their society, and the future. Yet the traditional college classroom often comes across as a package, created by academics to address their own strictly "scholarly" concerns. No wonder many students see themselves as aliens in another world.

Knowing our disciplines, though essential, is not sufficient for bridging the gap between the classroom and the "real world" students constantly face. We must also know something of our students, and use that understanding to help them connect course material with their lives. Good teaching is more than the *transfer of specialized knowledge;* it is the ability to engage students in the *process of inquiry*.

All of us remember students who have been particularly alienated from the classroom. Bruce was one such student. He started the semester with an abundance of "keep out" signs — arms folded over his chest, eyes usually cast downward. When called upon, he was the master of the elusive response: "I guess so. Yeah, it seems right. No, I'm not really sure."

Bruce might have become my symbolic penance for some past teaching sins — were it not for one encounter. I noticed that Bruce had a small tattoo on his arm, and asked how he decided on the design of an eagle. "That's a Harley logo," he replied, "and it's for my buddy, Jeff." It turned out that Jeff had died in a motorcycle accident a few years ago, and Bruce's tattoo was his effort to keep memories of the friendship alive.

Since an upcoming topic was socialization, including how societies prepare their members for coping with death, I asked Bruce if he would share the symbolic significance of his tattoo with the class. The discussion that day was gripping. The usually tough and recalcitrant Bruce told the class about his grief, tears beginning to form in his eyes. Other students, genuinely moved by his emotion, began to question whether American society really offers ample opportunity to express grief in a public forum. I noticed that over two-thirds of the students were also teary-eyed. They had their own experiences of loss. We spent the next two classes intensively and urgently trying to better understand American attitudes about death.

The experience with Bruce, stemming from one simple acknowledgement of a personal symbol, set a tone for the rest of the semester. We grew in our sense of community from that day on. That episode always reminds me of the real power that comes forth when a teacher tactfully knocks on the door of a student's personal life, despite the "keep out" signs.

Keeping It Relevant

In *Mastering the Techniques of Teaching*, Joseph Lowman states, "Attending class is akin to regular religious observance: The ritual or sermon is less important for what it teaches directly than for its motivational impact on what believers do between services." If we take this message to heart, it becomes imperative that we devise and use strategies for finding out whether — and how — our students are applying topical knowledge to their day-to-day experiences.

Our techniques, of course, must fit the course, our teaching style and personality, and resources. Some professors use brief, ungraded writing assignments to encourage their students to reveal more concerns from their "real world." Others rely on "conceptual scavenger hunts," challenging students to find examples from their own lives that demonstrate the applied value of course material. Even if some students don't see any connections, they are often stimulated to do so by the responses of their peers. Another device is "frustration journals," ungraded and intermittently read accounts of students' personal difficulties with the lessons.

Whatever the specific strategy, however, shaping a classroom environment that intersects with a student's "real world" first requires establishing the process of self-disclosure. In other words, the "keep out" signs need to be replaced with "welcome" signs.

Personal Risks — on Both Sides

It is crucial to encourage students when they show how course content applies to their lives. But equally important is your own self-disclosure. Students who strive to connect their classroom learning with some important piece of their own lives take a big risk. If we as professors refuse to take similar risks, we set a powerful example of disassociating life from education.

We need to share more of our own struggles with inquiry, not just the end results, what we have learned. Each time we let our students see that we, too, sometimes face uncertainty or a nagging personal experience that cannot be fitted neatly into the disciplinary wisdom, we invite our students to join in that struggle.

No matter what our specific techniques, the bottom line is that we must care enough to get to know our students and to reveal ourselves to them. Sometimes the process is friendly; sometimes it can be confrontational. It may even require interactions in hallways, cafeterias, parking lots, and other unusual settings.

Breaking down the barrier between the classroom and the "real world" can become as creative as we wish, albeit challenging and often frustrating. But it's worth it when our students perceive our material as real-world issues, not merely classroom contrivances.

Adapted with permission from the December 1990 issue of *Teaching Forum*, a publication of the Undergraduate Teaching Improvement Council, U. of Wisconsin System. ◆

Where It All Began

Research on college teaching began in the early 1900s. The first question studied is still discussed and debated today: "Are small classes more effective than large ones?" Although Wilbert McKeachie, in his article, "Research on College Teaching: The Historical Background" (*Journal of Education Psychology*, 82:2, Spring 1990, pp. 189-200), says that "size does not seem to be a conceptually exciting variable," (p. 190) the effects of class size on learning have concerned faculty for a long time.

In the first study, appearing in the literature in 1924, researchers compared the performance of two sections of the same course, one with 109 students and the other with 43. There was little difference: "The small class had a slight edge on an essay and mid-semester tests, and the large class had a slight edge on quizzes and the final examination." (p.190)

That study stimulated a classic series of 59 experimental studies at the U. of Minnesota in the late 1920s, which assessed achievement in a wide range of disciplines, including psychology, physics, accounting, law, and education. Results from 46 of the studies favored large classes for achievement, as measured primarily by classroom exams.

But support for small classes came from a study of hundreds of French classes between 1919 and 1943, ranging in size from nine to 33. The evidence documented consistently superior performance in small classes on objective departmental exams.

Later research furthered the case for small classes. During the '50s researchers at Miami U. used conventional achievement tests, but also looked at critical thinking, problem-solving, and student attitudes. They found that students did better in smaller classes, particularly students of high ability. They also considered retention and found that one and two years later students in smaller classes had retained more (not a lot more, but more) for eight of the nine courses compared.

In 1979 a meta-analysis of the different research findings concluded that size doesn't affect achievement, as measured primarily by knowledge of facts. However, if the issue is using knowledge to solve problems or applying knowledge to relevant attitudes, then the weight of the evidence favors the small class.

McKeachie notes that research on class size uncovered some interesting issues. It may be that the number of students is not the key variable: "It seems plausible that the effect of class size on learning depends on what the teacher does." (p. 190) For certain behaviors, strategies, and techniques there may be no difference at all between large and small classes in terms of several different kinds of learning. The hitch: "We lack descriptive studies of teacher behavior in college classes of different sizes." (p.190)

In this sanguine and interesting article McKeachie also covers research in instructional methods, student evaluations, and feedback — with valuable insights.

"Recently someone asked me if we had made any progress in learning about college teaching since I began doing research in 1946. The answer is obvious, I hope, in the preceding pages .... But ... the greater the advance, the greater the complexity ahead. The circle separating what we know from the unknown becomes even larger." (p. 197) ◆

The Teaching Professor

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Intellectual Community: Missing in Action?

Is intellectual community missing at our institutions? A lot of people in higher education think so. A collection of papers asserting that belief appear in the November/December 1990 issue of *Liberal Education*, from a conference on the topic convened by the Associated Colleges of the Midwest in spring 1990.

The question of whether intellectual community is missing raises three related questions. First, what is it? Second, assuming the definitions describe something we desire, why is it missing? And finally, what do we need to do to cultivate intellectual community?

Intellectual community is one of those slippery abstractions that defy concrete definition. To illustrate the vagaries of meaning, Richard Warch, president of Lawrence U., listed in his keynote address definitions and descriptions of intellectual community found in the catalogs of colleges represented at the conference.

Intellectual community:

- encourages in students "a sense of curiosity and intellectual adventure ... and an affinity for quality and integrity wherever they may be found."
- tries to make the student "at home in the world of ideas and ... value learning for its own sake."
- aims to "develop some sense of the whole, of the interconnections between fields of study and the larger realities."
- tries to educate persons "best able to provide humane leadership in a changing technical society."
- guides students "beyond the analysis of isolated facts and unconnected moments of existence to the discovery of meaningful pattern and larger design."
- "encourages a diverse population to live harmoniously and promotes responsible citizenship and dedication to intellectual and personal goals."

Assuming these definitions clarify (at least in a general way) what meanings we ascribe to intellectual community, we can now better see what many believe is missing from the intellectual experience at our institutions. Why is it missing?

Warch believes the proliferation of departments and disciplines has diminished the sense of intellectual community. "The extent to which an individual is preoccupied with *academic* community ... often is the extent to which he or she devalues *intellectual* community. Academic communities are the engines that drive our educational programs in departments and majors. Without them we flounder. But if we rely on them only, we cannot flourish as liberal arts colleges." (p. 10)

So, what might be done to cultivate intellectual community on our campuses? The papers in this collection suggest a variety of ways, including a core course experience where faculty and students meet over issues independent of disciplinary association, and programs and activities that emphasize common elements of the intellectual experience at college.

Warch thinks part of the answer involves simply not taking intellectual community for granted. "I do not believe that our colleges ... achieve such community as a matter of course." In other words, we must realize these lofty goals in concrete ways. But, as he points out, colleges and universities have a "predisposition" to intellectual community that virtually no other institution can claim. It's got to be easier for us to cultivate than almost anybody else. ◆

Open-Text and Open-Note Exams

by Terry Liska and John Simonson,
U. of Wisconsin-Platteville

We began giving open-textbook, open-notes exams in our business statistics classes a few years ago. We did so to free students from what we saw as needless memorizing of formulas, definitions, and procedures. Moreover, we wanted to reinforce our signals to students that interpretation, understanding, and application are important — rote memorization is not. But we found behaviors of *both* students and instructors were changed in some unanticipated ways — generally, we believe, for the better.

Permitting students to use their textbooks and class notes in writing exams eliminates the temptation to use crib notes or cheat sheets. Text anxiety also seems to be lessened substantially; indeed, when told at the beginning of the semester that they may use their textbooks and notes in writing exams, students invariably express relief.

However, we quickly discovered that testing with open books and open notes increases demands on students and instructors alike. The technique forces instructors to develop test questions which do not permit answers taken straight from the textbook or notebook; that is, questions requiring interpretation, analysis, and other critical thinking skills become *de rigueur*. Also, students quickly learn that being able to refer to textbooks and notes is not the unmixed blessing originally believed. These tests place greater emphasis on demonstration of understanding and applying concepts than is typically the case.

Greater Challenges

Everything has costs, of course, including giving open-text and open-note exams. Students believe that they will not have to study as hard for exams when they have their text and notes available for reference. The first exams usually destroys the myth, as students realize the exams require less memorization — but more critical thinking.

This approach has its instructional costs as well. In addition to more time and effort typically required in devising problems and questions, more time and effort must be spent correcting and grading. Closer attention must be given to assessing how well students recognize underlying assumptions, support arguments, make inferences, and so forth.

We have even found it necessary to alter our teaching styles. To keep students from reproducing on their exams chalkboard lists of facts, figures, and procedures, the instructor must give greater emphasis to explaining, interpreting, and applying basic course principles and concepts.

We are also currently experimenting with group learning in our business statistics course, finding that open-text and open-note exams seem to contribute to students' willingness to work with each other. Whereas memorization is effectively accomplished alone, interpretation and application are seen as more effectively accomplished cooperatively.

After some half-dozen years' experience with open-text and open-note exams, we are convinced that the benefits far outweigh the costs, especially in courses such as business statistics which depend so heavily on prescribed procedures. Both instructor and students focus more attention on critical thinking, an objective we do not believe can be too strongly pursued. ◆

Students and Deadlines

Some time back (June/July 1990) we explored the idea that maybe if students had a hand in setting deadlines they might be more motivated to meet them. The October 1990 issue of *Teaching Psychology* offers some evidence relevant to what we proposed.

The study reported there was conducted in two sections of an introductory developmental psych course. In one section students assessed their calendars for the semester, considering exams and papers for other courses, holidays, etc., and then set nine target deadlines for course assignments. (This particular course was taught using a personalized system of instruction [PSI] method that permitted students to have exams and other course assignments scheduled on different days during the course.) In the second section the instructor set the due dates.

The results? Students who set their own deadlines generally met them. They completed the course at the same rate as students in the section with instructor-set deadlines. Setting their own deadlines did not negatively affect their academic performance in the course.

Students who set their own schedules in this study didn't meet their deadlines more regularly than students responding to instructor-set deadlines. They didn't perform better either.

However, the strategy may still be worth trying. It has the potential to teach students something about time management. It increases their sense of control over and responsibility for their schedules. The strategy also encourages them to consider that most folks learn better when they pace themselves and that the pace they set for themselves must match their ability and preparation.

Reference: M.S. Roberts and G.B. Semb, "Analysis of the Number of Student-Set Deadlines in a Personalized Psychology Course." *Teaching of Psychology* (October 1990): 170-173. ◆

TEACHING PROFESSOR

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What Do We Need to Know?

Recently a subscriber who chose not to renew wrote that he thought *The Teaching Professor* had gone downhill. "At first your articles seemed to hit home with great suggestions, high targets, and down-to-earth examples. Lately, I think you have taken to quoting 'renowned educators,' big-name people who do studies but appear to not understand what it is to be nose to nose with a college student."

Although I have to guess as to the objectionable articles, he is right (at least partly). We review research on a regular basis and, less frequently, interview those engaged in research. It seems to me the crux of the matter centers on the accusation that big names who do studies don't understand what it's like being "nose to nose with a college student."

This puts squarely on the table the perception, that those who teach and those who research operate in separate circles that may on occasion touch, but certainly do not overlap. The perception is unfortunate, with many unhappy consequences.

If we teach with only our experience to guide us, we lose the knowledge, insight, and understandings that result from careful, controlled analysis in arenas much larger than our isolated classrooms. If those in higher education research are ignorant of the fact that practice begets sound wisdom, they lose a valuable connection with those who know "real world" classrooms best.

If you could get an answer to any question about the effects of your teaching on student learning, what question would you most want to ask?

In other words, if you could set the research agenda for higher education, what would your priorities be?

Teachers and Researchers: Synergism

We do need each other, but how do we facilitate better communication and understanding between teachers and researchers? I say, by attempting it!

Let's imagine for the moment that those who study students, teachers, and learning in the higher education context are interested in input from practitioners. Do we have any basis for assuming that they aren't?

If you're still playing along, imagine a situation something like this. You have at your disposal a top-notch higher education researcher, one with the experience, knowledge, skill, and support necessary to do first-rate research. What would you have that person study? As you go "nose to nose" with your students, what do you wish you knew about them and how they learn? If you could get an answer to any question about the effects of your teaching on student learning, what question would you most want to ask? In other words, if *you* could set the *research agenda* for higher education, what would your *priorities* be?

Is this more pie-in-the-sky optimism? I hope not. My current association with the recently funded National Center on Teaching, Learning and Assessment gives me access to some of the best higher education researchers in the country. I propose to take your questions to them, to solicit their responses and reactions.

What will they say? I don't know, but I do think it's worth a try. Your questions and their responses to them will be part of an upcoming issue of *The Teaching Professor.*

Write the editor, at the address in the box on page two, with your answers to any or all of these questions:

- If you could have an answer to any question about *students*, what would that question be?
- If you could have an answer to any question about *learning*, what would that question be?
- If you could have an answer to any question about *instructional effectiveness*, what would that question be?
- If you could offer *advice and input* to those setting the higher education research agenda, what recommendations would you make? Asked another way, what are higher education's most important unanswered questions?

We need to receive your answers by June 15 in order to include them in our first round of responses. Thanks in advance for your response. ◆

Assignments for First-Year Students

There's a new book on the market, *Teaching College Freshmen*. It responds to solid evidence indicating that success in the first few classes is a key variable in determining whether or not students successfully complete college.

Authors Bette Erickson and Diane Strommer, in a chapter on "Fostering Active Learning Outside the Classroom," offer some interesting advice on assignments particularly well suited for first-year students.

They begin with what they don't recommend. "Term papers and projects seem especially ill-suited for freshmen. They ask students who know little about a subject to identify topics of special interest prematurely and require in-depth study before students know what resources could or should be consulted. Attempts to provide the directions and guidance freshmen need turn into impossible tasks because we cannot supervise what are essentially independent study projects for 20 or 30 or more students. The most serious reservation about these assignments, however, is that they do nothing to encourage freshmen to study on a day-to-day basis." (p. 124)

Erickson and Strommer are also critical of the way many of us make reading assignments. We simply tell students to read a specified number of pages before coming to class. When we ask questions and students can't answer, we're quick to conclude they haven't done the reading. Erickson and Strommer admit some students don't do the reading, but they believe most do try. The problem: the way they read. "Many are passive readers .... They highlight their way through an assignment and assume they are done. They tend not to use strategies that lead to understanding — paraphrasing, summarizing, questioning the text, testing themselves — unless an assignment prompts them to do so." (p. 124)

At different times in the college career different instructional strategies and experiences are appropriate. We don't think that way often enough when we plan courses.

What is unique about each level? And how do we maximize student growth and development at each level?

What do they recommend for first-year students?

— Assignments that are less ambitious than the typical term paper or project. Papers, yes, but shorter — four or five pages. "If we want freshmen to study regularly rather than intermittently, we need shorter and more frequent assignments." (p.132)

— Focused assignments, not the general "Think about this for next time." "Focused tasks and explicit instructions provide the direction and structure many freshmen need." (p. 132)

— Assignments that call for a product — a list, an outline, a paragraph, a solution to a problem, a clipping from a newspaper, a completed survey. "Producing or finding something tangible not only helps freshmen organize their thoughts but also tells them when they are or are not done studying." (p. 132)

— Assignments that involve students in activities that promote understanding and thinking.

— A variety of assignments. First-year students, like others, have different learning styles. "If we systematically vary the types of assignment and provide choices whenever possible, we have a better chance of reaching all freshmen at least some of the time." (p. 133)

— Frequent, short assignments to help students keep up and study regularly. But an important caveat: not all of these are assignments to be graded. "We distinguish assignments *to learn* from those that assess what students *have learned*." (p. 133) Will students do them if we don't grade them? Yes, say the authors, if we focus on some assignments in class discussion, scan others for evidence of misunderstanding, designate some as practice exams, and spend time telling students what we know about how people learn best.

After reading this book it occurred to me it ought to be part of a series: this volume to be followed by one for sophomores, another for juniors, and as fourth for seniors. At different times in the college career different instructional strategies and experiences are appropriate. We don't think that way often enough when we plan courses. What is unique about each level? And how do we maximize student growth and development at each level?

Reference: Bette LaSere Erickson and Diane Weltner Strommer, *Teaching College Freshmen* (San Francisco: Jossey-Bass, 1991). ◆

Lectures and Mental Lapses

When we lecture, our students may experience four kinds of mental lapses, of which we may not be aware:

Short-Term Memory Overloads. Short-term memory functions as a kind of buffer zone where a discrete amount of information is stored before being moved into long-term memory. Researchers estimate it takes between five and 10 seconds to transfer information from short-term to long-term memory. If new ideas come too fast, the buffer may overflow — which happens regularly in our classrooms.

Momentary Misunderstandings. The student doesn't immediately grasp an idea; confusion results. New information cannot be moved into long-term memory unless it "fits" with what the student already knows and understands. The lecture moves on, leaving the student behind, grappling with unclear ideas, not attending to the new ones.

Translation Troubles. Instructors may use terms other than those used in the text or previous lectures. Years of familiarity with a discipline may make us casual about its language and interchangeable terms. Students are much less able to make the necessary translation. As they struggle to integrate familiar and unfamiliar terms, to determine if they mean the same thing, we move on.

Sidetracks. Here the student is at the root of the problem. Something is said that triggers another (hopefully complementary) chain of thought. The student pursues it, perhaps savoring a difficult concept mastered or a homework problem solved, perhaps anguishing over the inability to understand. While the student is on this sidetrack, all new input passes by.

How can we help students overcome such mental lapses? Being aware that they occur is a big first step.

Rowe recommends an interesting strategy: a two-minute pause every eight to 12 minutes during a lecture, so students can review their notes with each other, filling in missing material and clarifying problematic concepts. These brief breaks give students practice verbalizing what they're learning (which contributes to retention), help them keep more complete notes, and allow them to attend to subsequent lecture sequences without as many mental lapses.

Reference: Mary Budd Rowe, "Getting Chemistry Off the Killer Course List." ***Journal of Chemical Education*** **(November 1983): 954-956.** ◆

Teaching and Personality

The relationship between teaching and personality has long been a source of interest and speculation. Is good teaching a function of personality? Are certain personality characteristics associated with more effective instruction? Is there an identifiable teaching personality that would permit us early on to encourage some to enter the profession and discourage others?

Intriguing questions, all explored to some degree in various research paradigms, but most recently and perhaps most interestingly in a study by Harry G. Murray, J. Philippe Rushton, and Sampo V. Paunonen.

Murray and his colleagues studied psychology professors at Western U. (Ontario), which may limit generalizations but not the relevance of their approach. They divided the 110 different psychology courses offered at Western into six general types: *introductory* (the first-year survey course), *general* (elective survey courses for non-majors), *required* (mandatory core courses in research methodology and experimental psychology), *optional junior* (elective survey courses in basic content areas), *optional senior* (elective courses in specialized topics), and *graduate*. Next they used student rating data to calculate for each instructor a mean for each of the six course types. All 46 professors had averages for at least three course types.

When the researchers looked at those averages, they found "clear evidence ... that perceived teaching effectiveness does vary substantially across different types of courses for the same instructor." They clarify that conclusion more dramatically: "In other words, it is the exception rather than the rule for an instructor to perform exceptionally well or exceptionally poorly in all types of courses." (p.259)

This finding pretty much rules out the possibility of a standard, uniformly effective *teaching personality*. Other findings confirm this, but establish a strong link between personality traits and student ratings. Murray and associates gave their faculty a list of traits and definitions, then asked them to use those traits to rate a sample of 12 to 18 of their department colleagues.

When they compared those personality ratings and student instructional ratings, they found strong relationships. Using multiple regression analyses, they showed that "40% to 70% of between-teacher variance in student instructional ratings was predictable from peer ratings of as few as five personality traits."

Looking further, they made their "most important" finding — "The specific personality traits contributing to effective teaching varied substantially for different types of courses." For example, extroversion (defined as having friends, liking parties and excitement, and being optimistic) and liberalism (defined as progressive, modern, adaptable, seeking change) correlated strongly with student ratings in undergraduate courses, but showed zero or negative correlations with ratings from graduate courses. On the other hand, instructor achievement and endurance contributed to success in graduate courses and those required for majors, but weren't related to performance in other courses.

"The results of this study provide evidence that, at least in the field of psychology, university teachers tend to be differentially suited to different types of courses rather than uniformly effective or ineffective in all types of courses. Furthermore, the compatibility of teachers to courses appears to be determined in part by personality characteristics. According to this interpretation, very few teachers will have the necessary range of personality traits to excel in all types of courses. One of the secrets of effective teaching, therefore, is to discover the conditions under which one teaches most effectively." (p. 259)

This study has important implications for our use of student evaluations in personnel decisions. It suggests that we need data from all the types of courses a faculty member teaches and that it may be unreasonable to expect them to be equally high.

More important, the findings have implications for individual faculty. Murray and his colleagues include in their study a quote from N.L. Gage and D. Berliner's text *Educational Psychology* (1984), which identifies a principle we should not forget: "Just as plays and movies require casting, and not every actor is suitable for every role, so teaching methods require matching with the strengths and weaknesses of the teacher."

If your personality makes it difficult to lecture or lead discussions, you shouldn't volunteer for courses where those methods are the most suitable. Sound advice — but in most of our departments we usually can't volunteer for our teaching assignments. More often we may have little or no influence on the decision. In that case, we must work to adapt to our personal tendencies and strengths what seems most suitable to the instructional setting. If you really don't lecture well, compensate. Be sure that your lecture courses include opportunities for interaction, group work activities, and short panel presentations. What you do best as a teacher deserves to be featured — if not all the time, then at least regularly.

The strong relationship between teaching and personality supports advice we've offered repeatedly in this newsletter. To succeed as a teacher, you must know who you are, know what you can and can't do, and accept that. Your best teaching will always be teaching that genuinely and authentically reflects the person you are. Don't worry about not having the "right" personality. This study confirms that there's room for various personality types in our classrooms.

Reference: H.G. Murray, J.P. Rushton, and S.V. Paunonen, "Teacher Personality Traits and Student Instructional Ratings in Six Types of University Courses." ***Journal of Educational Psychology*** **(1990), Vol. 82, No. 2: 250-261.** ◆

Classrooms and Their Influence

My class isn't going as well this semester as I'd like. There's a superficiality to our discussions and a closed-mindedness that annoys me. Too many of the papers are truly pedestrian. Too many students miss class.

I'm searching for reasons. Some come to mind. But I keep thinking about the classroom where we meet. It's in an old building in the heart of campus. Thousands of students use it daily. The hard use shows.

But the problem is more than hard use. In our room, for example, there are too many desks, uncomfortably crowding the room. A large table fills the front of the room. If I move it out so I can use the board, I've got to push it up against the desks. Somebody else who teaches there thinks an overhead projector is the solution. There's no permanent screen in the room, so a portable one adds to the clutter up front. The projector rolls around and over its cord and gets tangled.

What bothers me most, though, are the two broken desks: one with a bent leg, the other with its top disconnected. First we tried to put them out of the way in the back, but there just wasn't room. Next, I asked some students to move them out into the hall. I attached a polite note requesting either repair or removal. Last week they were back in the middle of the room, minus the note but still broken.

The long and short of it: this particular classroom is not conducive to learning. It probably isn't the source of my problems with this class, but it certainly contributes nothing positive.

I guess I should admit to some attitude problems. That I should suffer the consequences of my institution's benign neglect of its classroom facilities makes me mad. I first wrote this piece last month. The anger, annoyance, and revolutionary solution prompted a call from my very sane and sensible assistant editor. "The tone of the piece isn't very constructive." I agreed.

Question of Priorities

Like all problems in higher education, this one has no easy answers. Times are tight and maintaining classrooms costs money. Institutions have all sorts of priorities to juggle. It's just that clean, maintained classrooms with functional equipment make my job easier and contribute to my success in small, intangible ways — difficult to measure, but nonetheless real.

Sure, I can teach well without proper facilities, but it's more work and I'm feeling pretty much overworked as it is. Part of the distress for me is the eloquent evidence that such neglect offers about the importance of teaching and learning. The message demoralizes me. What does it do for my students?

I heard once that a group of faculty concerned about the quality of classrooms on their campus met several days over lunch to draft a classroom bill of rights — what every room needs in order to be a climate for learning. I never saw their list, but I'd like to. I'd make copies of it and post them in rooms around campus. I suppose I could organize a group like that. But this time of year I'm just too tired to make the extra effort. Getting to class the 10 minutes early that are required to make order out of chaos is my contribution for the moment.

But the experience has a redeeming side, of sorts. I've learned yet again that the effects of the physical surroundings on efforts to teach and learn are not neutral — unfortunately. ◆

The TEACHING PROFESSOR

Volume 5, Number 6 June/July 1991

Does College Make a Difference?

A college education continues to be a prized commodity in our culture. Why? Are there good reasons? What happens when people attend college? Do they change? Does it make a difference? These are important questions for those of us whose lifework is inextricably linked to the impact of college on students.

Fortunately for us, attending college does make a difference in a variety of ways, first summarized and explained in a 1969 book, *The Impact of College on Students*, by Kenneth Feldman and Theodore Newcomb, and now elaborated and updated in a new book, *How College Affects Students*, by Ernest T. Pascarella and Patrick T. Terenzini.

The new book begins where the first book did by reaffirming the need for periodically "taking stock" within areas of scientific inquiry. An accumulation of data needs to be looked at, integrated, synthesized, and summarized.

In the case of the evidence that college makes a difference, during the 20 years between the first and second book a large body of new evidence has accumulated. Pascarella and Terenzini's search of the literature yielded more than 2,000 studies. Evidence accumulated since 1969 has been collected and analyzed with better research tools. More of the research tests articulated theoretical assumptions.

The preface includes another reason for reviewing the evidence now. Higher education is under increasing pressure to be accountable — to justify rising tuition costs and to respond to complaints that college graduates aren't as "educated" or prepared for the work force as they once were. This book addresses the accountability issue by focusing on research specifically designed to study the nature and degree of change that occurs as a consequence of a college education.

And what does the research say changes in college? Lots of things: students acquire knowledge of specific subjects, they develop more general cognitive skills like critical thinking, their sense of self and of self-esteem changes, as do their relationships with others. The college experience helps to shape values and develop character. College attendance affects educational aspirations: it makes certain career choices an option and, as a consequence, accrues economic benefits not enjoyed by those without a college degree. In general, it changes the quality of life for those students.

The book does more than simply amass the evidence that college makes a difference. It helps us to understand the nature of that change by exploring different ways it can be measured or assessed. Pascarella and Terenzini use six questions, which serve as the internal structure of each chapter, to guide this deeper exploration. They begin with the easiest, most obvious, but most fundamental question: Does the change occur? This general question leads to a more specific one: To what degree or extent can the change be attributed to the college experience itself and not something else, like normal maturation?

With those fundamental questions out of the way, we can look at the nature of the change from several different perspectives. Is the impact of college influenced by the kind of institution students attend? What are the effects, if any, of a student's exposure to certain kinds of experiences, like living in a dorm, getting involved in extracurricular activities, or having frequent contact with faculty? Are the changes produced by a college experience different depending on certain conditions, like whether a student is male or female, a minority or not? Finally, what kinds of long-term effects do the changes that occur in college have?

How Important Are Institutional Differences?

This exploration of the nature of the changes leads to some of the book's most interesting findings. For example, the researchers write that the evidence they reviewed on the differences between colleges in terms of their effects on students raises "serious questions about what we mean by college 'quality.' " In other words, what the expensive, highly selective institutions do for students is not all that substantively different from what much less prestigious institutions do. "The apparently general character of college effects on student change clearly implies that a substantial number of non-'elite' four-year institutions may be able to compete quite successfully with substantially more prominent and resource-rich institutions."

Also of interest are findings that commuter schools, quite understandably, are less able than residential institutions to provide students with the interpersonal and psychosocial experiences that contribute to their affective development. Students have less opportunity to interact and relate to each other, which has implications for the changes which occur in these areas. Pascarella and Terenzini point out that now half of America's college students commute and more are likely to do so in the future.

The problem with commuter institutions is complicated by the fact that many of these institutions are two-year schools, where the desired changes resulting from a college education must occur in half the time. Evidence reported in the book reveals that students in these schools are considerably less likely to complete a baccalaureate degree.

"I can't believe we did the whole thing," observes Terenzini. He points to five full file drawers crammed with his "half" of the articles and a 10-pound file case of 5 x 8 cards with notes about each article. The project took the authors three years of virtually undivided attention.

Fortunately for us they did complete the project, providing an organized and comprehensive description of how college affects students. Most often we see the impact of college in individual terms, in the lives of the few students we come to know well. This larger view confirms our collective efforts.

***How College Affects Students* is available from Jossey-Bass, 350 Sansome St., San Francisco, CA 94104; Ph: 415/433-1740. 984 pp. Cost: $39.95 paperback, $75.00 hardcover.**

The Guest Lecturer: Do's and Don'ts

Do:

— Ask guests with expertise that genuinely contributes to the content of the course.

— Ask guests with expertise you may not have.

— Ask guests with viewpoints or approaches different from yours.

— Provide guests with relevant background about the course content and class personality.

— Help the class prepare for the guest. Give your students a short synopsis of his or her work, encourage them to think of questions they'd like to ask the guest, maybe provide a example question.

— Introduce the guest, establishing his or her credibility. If you have to be away, work with a student to prepare an appropriate introduction, or introduce the guest the day before, or have a written introduction distributed in class.

— Consider co-presenting with the guest. Students can be stimulated, provoked, and informed by a lively exchange between two experts — especially if they disagree.

— Use the contributions of the guest subsequently in the course; refer to them in discussions, relate them to new material, and remind students how the guest approached problems.

— Most important of all, make the most of good opportunities for guests. They can refresh you, your students, and the course.

Don't:

— Don't give students the impression that a guest is anyone you can find to fill in while you're away.

— Don't have guests only when you aren't in class.

— Don't invite someone to cover your class without making suggestions as to what he or she might do.

— Don't invite guests two days before you have them scheduled.

— Don't invite guests without knowing about the kind and quality of presentations they give.

— Don't invite a colleague to guest without volunteering to return the favor, if and when your expertise might contribute to his or her course.

> *"Teaching is the educational* equivalent of white-water rafting. Periods of apparent calm are interspersed with sudden frenetic turbulence. Boredom alternates with excitement, reflection with action. As we successfully negotiate rapids fraught with danger, we feel a sense of self-confident exhilaration. As we start downstream after capsizing, our self-confidence is shaken and we are awash in self-doubt. All teachers sooner or later capsize, and all teachers worth their salt regularly ask themselves whether or not they are doing the right thing."
>
> — Stephen D. Brookfield, *The Skillful Teacher*, 1990, p. 2

TEACHING PROFESSOR

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From Start to Finish

Where the Rubber Meets the Road ...

Every teacher has a philosophy of education. Most of us haven't published ours ... most of us don't talk all that regularly about it with colleagues ... most of us don't even think about it all that often. But for all of us, what we believe about teaching and learning gets translated, transformed, operationalized into the collection of policies, practices, and behaviors that characterize the way we conduct class on a regular basis.

Students in my graduate course on college teaching have been thinking throughout the course about their philosophy of education. This week they're developing syllabi — syllabi that not only summarize the content of your course, but also propose a series of classroom policies, practices, behaviors, and activities that reflect their philosophy of education. In other words, it's fine to say you respect the rights and integrity of your students, but how do you operationalize that? How do you convey that in the policies and activities of the course?

I've had lots of students coming to see me the past week. It seems that this isn't a particularly easy assignment. A number of them have started on the project by reviewing the syllabi of their current courses — with some surprises. When they've closely scrutinized their policies and practices, questioned them in terms of the underlying assumptions, some students have discovered that certain policies and practices reflect beliefs other than those they assumed they held. So what do they believe about teaching and learning?

I can't answer those questions, but their perplexity has sent me to the collection of syllabi I keep on file, convinced that this is an activity that could benefit all of us. Even a cursory review of them reveals some stark differences, both in actual policies and more subtly in the tone used to convey those policies. Hopefully, the samples below will start you thinking along these lines. Hopefully, they will encourage you to look at your syllabi differently — to view them as documents which convey, both implicitly and explicitly, important messages about our educational beliefs.

> *For all of us, what we believe about teaching and learning gets translated, transformed, operationalized into the collection of policies, practices, and behaviors that characterize the way we conduct class on a regular basis.*

Compare and contrast the following attendance policies:

— From a 100-level political science course:

"Regular attendance in class is expected. Plan not only to show up but to take extensive notes, to think, and to speak. Be prepared to challenge the basic premises of the class and the reading. A variety of perspectives and opinions will be strongly encouraged, along with vigorous (but civil) debate and argument. Be willing to take some chances intellectually. The class will emphasize discussion heavily and rely little on lectures by the main instructor."

— From a 400-level architectural engineering course:

"It is very important that you attend class regularly. However, if you missed a class for some reason, be sure to check with others in class for any assignments or announcements made. You are still responsible for these."

— From a 200-level music course on conducting:

"The majority of course expectations will be met by practical conducting experiences in class. Therefore regular and punctual attendance is mandatory. Absences *and tardies* (welcome to 8:00 a.m.) will be excused only if the instructor is informed of them *before* class via face-to-face contact or telephone. Absences and tardies not meeting these requirements will be considered unexcused and will negatively affect the semester grade: -5 points for each unexcused absence, -2 points for each unexcused tardy.

Compare and contrast these two course descriptions:

— From a 200-level film history and theory class:

"This course will examine the major Western theoretical and critical approaches to the film medium, focusing particularly on contemporary developments which draw heavily from non-film areas: linguistics, psychoanalysis, feminism, and Marxism. By reading and discussing selected articles in the context of relevant films, we will be able to test the explanatory powers of these various approaches, evaluating their relative strengths and weaknesses. At the same time, by historicizing these theoretical interventions, we should be able to reframe them as discourses within an ongoing continuum of production and reception, thus addressing larger issues of cultural signification."

— From a 300-level business logistics course:

"Business Logistics 301 is an introduction to the area of logistics. The course is designed to present an overview of logistics with consideration as to how logistics relates to majors in marketing, finance, and other business fields. For non-business majors like computer science, forestry, and mineral economics, Business Logistics 301 provides applications and/or important relationships. For the business logistics major, the course provides not only an introduction but also a base for additional coursework in this area."

What about you? What important messages do your syllabi convey about your philosophy of education? ♣

Students Don't Like Course Evaluations Much Either

We've pointed out in this publication, on more than one occasion, that faculty don't much like the end-of-course student evaluation activities as they are commonly conducted at many of our institutions. Come to find out, students don't much like them either.

A group of researchers recently reported on a study conducted at the U. of Washington that sought to test student satisfaction with processes used to collect their opinions about instruction. Using a 2 X 2 X 2 experimental design, they systematically varied three factors: the method used to collect student opinions, the time opinions were collected, and the extent of the instructor's reaction to those opinions.

"It is disturbing to find that students evaluated as least satisfying the predominant, traditional means of collecting student opinion about teaching effectiveness."

As for the two methods of collecting student responses, these researchers used "an individually administered, standardized, student-rating form and a group interview process." (p. 202) In the group interview process, the "Small Group Instructional Diagnosis" or SGID, the facilitator and the instructor meet first to discuss the course. Subsequently, with the instructor absent, a facilitator meets with the class, divides the students into groups, and solicits from each group feedback about the instruction, which the facilitator then shares with the rest of the class and privately with the instructor.

Opinion data from students were collected at midterm and at the end of the course. Instructors reacted to the student data in one of two ways. In one case, they received summaries of the student opinions and "responded at the next class meeting by talking about those aspects of the course that could be modified and those aspects that could not be changed." (p. 203) In the second case, instructors received the summaries and responded the next period, but they did nothing more than thank students for offering their assessments.

Results showed that students preferred the class interview method, which allowed them "to generate their own categories of response and to check perceptions of teaching effectiveness with others in the class." (p. 205) They were also more satisfied when their opinions were collected at midterm. And finally, they were more satisfied "when the collection was followed by an extended reaction from the instructor," which these researchers believe "suggests that instructors need to respond to student feedback directly." (p. 204)

They conclude, "It is disturbing to find that students evaluated as least satisfying the predominant, traditional means of collecting student opinion about teaching effectiveness: the use of individual, standardized rating forms administered at the end of courses with limited instructor reaction to the information provided by students." (p. 205)

Reference: Robert D. Abbott, Donald H. Wulff, Jody D. Nyquist, V.A. Ropp, and Carla W. Hess, "Satisfaction With Processes of Collecting Student Opinions About Instruction: The Student Perspective." ***Journal of Educational Psychology*****, vol. 83, no. 2, 1990, 201-206.** ♣

Teaching and Techniques

College teachers like techniques — new ideas, innovative strategies, things they can try in class tomorrow. Why? Novelty is part of the attraction. What we do in class on a regular basis has a way of tiring both us and our students. Something new adds new life, zest, and energy to the classroom. In addition, teaching techniques are concrete, doable. We tend to think of them as the quick and easy way to better teaching.

But are they? The relationship between teaching and technique is interesting. Perhaps we can explore it by exploring this question: What is the role of technique in instructional effectiveness?

I believe technique in teaching is the same as in playing the piano: if you don't have it, you'll never make music. This means instructional techniques are essential. Teachers need a repertoire of instructional strategies — things they can do when, for example, they ask a question and nobody answers. However, although having technique is a prerequisite to making music, those with technique don't always make music.

As a means of illustrating that point, let's use the techniques for getting students to answer the questions we ask them. A collection of those strategies might include:

- wait time ("relentless patience," as one faculty member described it);
- moving out toward the class;
- using good, direct, seeing eye contact;
- calling on a student by name;
- repeating the question;
- rephrasing the question;
- offering a clue;
- answering the question yourself — but we should probably rule that one out: it isn't a very good technique, especially in terms of its effects on subsequent student participation.

Some in higher education think our interest in techniques is excessive. The American Association of Higher Education's President Russ Edgerton points out — and I think he's right — that a discussion of teaching only in terms of techniques is neither intellectually robust nor particularly satisfying. Our list of techniques for getting students to answer questions sort of illustrates his point.

But, in fact, identifying techniques only begins the discussion. So you've got the seven techniques for getting students to answer questions. Now you're in class, you've just asked a question, ... and nobody's answering. Which technique will you use?

You decide to try waiting. But still nothing happens. (There are days like that!)

So you move out, close in on the front row, and zero in on Brenda, who is basically bright and should know. She doesn't establish eye contact; you ignore that and call on her anyway. Her face reddens, she stammers, makes some inarticulate, garbled response from which you try to make some sense, without much luck. Next day in class Brenda and three of her classmates who regularly sat in the front row sit elsewhere. You've got empty seats there now.

Or play out the scenario this way. Nobody answers and you rephrase the question, assuming they don't understand what you're asking (we all ask an unclear question now and then). It's very difficult to rephrase without changing (even if only slightly) the meaning of the question. As a result, the second question is different. Some students thought they understood the first question and were working up the courage to answer. Now they're confused. Still no answer.

Panic sets in and you rephrase the question yet again. Now you've asked three separate (related but still separate) questions. At this point the confused feelings are expressed in confused faces. Finally a brave student saves the day. "Are you asking ...?" and articulates a clear, concise question. "Yes!" you exclaim in relief. Three hands rise in response.

Putting Techniques to the Test

And so, based on the two scenarios, what are we to conclude about the seven techniques for getting students to answer questions? From the first it's tempting to conclude: don't call on students in the front row if they don't establish eye contact with you. Or maybe you shouldn't call on students at all. Or maybe the technique of closing the distance between yourself and students is bad and ought to be deleted from the list. And for the second scenario, perhaps the lesson is: don't *rephrase* questions, just *repeat* them.

Based on two experiences with teaching techniques we're probably smartest if we conclude nothing. But the two scenarios show the difference between *having techniques* and *using them effectively*.

Techniques are not the quick fixes, easy answers we might wish. In and of themselves they tend (for the most part) to be neutral. It's how they are used during the performance that determines whether or not they help teachers make music. And it's in the arena of the performance where the really difficult and not-very-well-understood decisions must be made. How do you decide which technique to use when?

Teachers need techniques; most of us could use more. But we must never assume that techniques alone ensure our success in the classroom. And perhaps we should devote as much energy to figuring out how to use techniques as we do to collecting them. ◆

International Society for Exploring Teaching Alternatives

Ed.'s note: In the interest of promoting college teaching, this newsletter shares information about various groups, individuals, projects, and publications. We try to include material on possibilities that faculty may *not have considered. For example, have you ever considered joining a cross-disciplinary group of faculty expressly interested in an aspect of instruction? There are various groups of that sort. We introduce you to one in this issue, with others to follow.*

Ken Klopfenstein, a math professor at Colorado State U. and past president of ISETA, and William Mullin, a biology professor at the U. of New Brunswick and current president of ISETA, answered a series of questions we raised about this organization.

How and when did ISETA get started?

ISETA traces its origins to the Audio Tutorial Congress, founded by Professor Sam Postlethwait in the late 1960s. The Center for Guided Design (which still exists) at U. of West Virginia and the Center for Personalized Instruction (now defunct) at Georgetown U., which began only a few years later, are also part of ISETA's roots. Each of these groups aimed to promote the use and development of a new instructional strategy — alternatives to the traditional lecture — primarily among those of us who teach in college.

In 1980 several individuals who were leading the explorations of these teaching alternatives — Sam Postlethwait, Charles Wales, Fred Keller, and Thomas Kurtz — met at the U. of Windsor to explore common issues and concerns arising from their interest in individualizing instruction. These various strands merged, two years later, into the International Society for Individualized Instruction, now known at the International Society for Exploring Teaching Alternatives.

What does ISETA do?

ISETA activities include an annual conference, held each fall; publication of a newsletter; support of a refereed periodical, *The Journal of Professional Studies*, which serves as a forum for enhancing teaching in higher education; and service as a networking and resource agency for its members. All these activities aim to encourage systematic investigation, development, and implementation of effective teaching-learning methods, primarily at the postsecondary level.

Why should a faculty member interested in good teaching consider joining ISETA?

The instructional strategies identified with our origins — audio tutorial, guided design, personalized system of instruction, computer-based instruction, feedback lectures — arose because their originators believed traditional instructional methods did not achieve important instructional outcomes. These beliefs — that the effectiveness of traditional teaching methods should be questioned and that the search for effective teaching strategies is an important, valuable, and appropriate scholarly activity for educators in all disciplines — persist in ISETA. They are translated into reality in the annual conference, which is arranged to foster sharing and mutual encouragement among educators from all academic areas, and the society publications, which are designed to affirm the value of teaching as a scholarly activity and to provide for the exchange of useful, current information.

ISETA is an association of professional educators in which teaching as a scholarly activity is encouraged, fostered, facilitated, and overtly valued. Anyone who shares these beliefs and values and wishes for a professional community in which they are affirmed is a likely candidate for ISETA membership.

What sort of impact does ISETA have?

The impact is primarily at a grass-roots, personal level. We directly influence individual practicing educators. We find ample indications that, for those individuals involved, ISETA changes the way they think about and practice education.

What does ISETA consider the most important instructional issues at the moment?

There is no official society position on this question. From listening to our members, we believe they would say that the most persistent obstacle to improving teaching and learning is the reluctance of the established academic community to question the effectiveness of commonly accepted teaching methods.

How is ISETA organized and financed?

We're organized as a nonprofit corporation. The Society Board, elected by the membership, establishes general policy and direction for the Society. A three-member Corporate Board (consisting of the president and two selected members) manages the Society's corporate affairs.

ISETA is financed entirely by its members and their institutions through conference fees and annual dues, contributions, and volunteered services. ISETA has no paid staff. All the work of the Society is done by volunteers, primarily faculty members who do this work in addition to their normal responsibilities.

How many members do you have?

ISETA is a small organization. We have 2,000 names on our mailing list. About 350 of those individuals we consider active members.

When and where is your next annual conference?

Our 21st annual conference, hosted by the U. of Central Florida, will be held October 3-5, 1991 at the Holiday Inn Cocoa Beach Resort. The theme this year is "Exploring Teaching Alternatives — Transforming Learning." Information about this conference is available from Ken Klopfenstein (address below; ph: 303/491-6456; e-mail: Ken_Klopfenstein.math@CNSmail.MSO.colostate.edu).

What's the procedure for joining ISETA?

Individuals wishing to join should send $25 (US) to: K.F. Klopfenstein, ISETA, Department of Mathematics, Colorado State U., Fort Collins, CO 80523. Members receive one copy of the proceedings of the most recent conference, the Society newsletter *Connexions*, *The Journal of Professional Studies*, and all general Society mailings. ◆

Summer Reading

If you read this publication at all regularly, you know how interested we are in promoting teaching as a scholarly activity. We believe that it requires study and careful observation, just like any other phenomenon we seek to understand. The scholarly dimensions of teaching demand that we seek insights and wisdom other than our own. So, we advocate reading about teaching.

When we review books, some of you object that you don't have time to read. That's why you subscribe to the newsletter: you want the information brought to you. We understand. When we write about books, we try to include something substantive, something you can take with you even if you can't read the book.

However, our commitment to teaching as a scholarly activity compels us to regularly suggest other sources. We cannot possibly include in a newsletter everything you need to know about teaching. We try to time pitches like this for issues other than your busiest months.

So with the "lecturette" out of the way, may we recommend three books for your summer reading? They don't focus on techniques. You'll find good ideas in them but they focus on larger issues. Each is provocative, questioning, reflective, and stimulating. Each is exceptionally well-written. These are books to make us think.

The Vocation of a Teacher

Wayne C. Booth

Chicago: U. of Chicago Press, 1988. 353 pp. ISBN 0-226-06581-2. (Orders accepted at 800/621-2736; $24.95 cloth and $14.95 paper.)

Booth, a well-known and widely published English professor at the U. of Chicago, celebrates teaching in this volume, as he has throughout his long and distinguished career. It's a loosely organized, at times rambling collection of articles, speeches, and journal entries which explore — as the title announces — the vocation of teaching.

In the end a wonderful affirmation of the best parts of our profession, the book doesn't avoid the downsides of teaching. Booth shares his personal frustrations and anguish over issues like class size, student preparedness, and the number of committees on which he's expected to serve. The book rings truest for those who teach in the humanities, but its structure makes spot-reading possible. What makes this book compelling is the personal involvement of the author. Here's a teacher who commits to print all the unspoken, sometimes even inarticulate feelings that most of us in the profession experience.

Excerpt: "Every teacher knows — though it's difficult, perhaps impossible to 'prove' — that to teach reading and writing and thinking requires personal, individual attention to students' responses, and that up to a point, the smaller the student load the better the results. It is true that some studies purport to show that class size makes no real difference. But nobody who has tried to teach English to more than twenty or thirty students at a time will believe those studies. To teach English, at whatever level, means to teach writing, and teachers of writing, if they have too many students, and if they are conscientious, burn themselves out fast, faster than any teachers except those who work with the handicapped and delinquent. The burden, the cross, of English teaching is the task of reading and responding personally and intelligently to batches of 'bad writing'. " (p.235)

Killing the Spirit: Higher Education in America

Page Smith

New York: Viking, 1990. 316 pp. ISBN 0-670-82817-3. (Orders accepted at 201/387-0600; $19 hardback.)

Smith is a historian, known best for his marvelously "readable" books on various personalities and eras of history. This book, most often placed by reviewers in the ever-growing stack of critiques of higher education, is first and foremost a history of higher education in America.

There's no question that critique is an ever-present theme, but the more fundamental value of this book is its recounting of where we came from and how we've evolved. And it's a fascinating account.

Smith traces the emergence of universities in this country and from them the evolution of state universities. He recounts the education of women in this country. He explains how the Ph.D. and tenure have come to be commonplace credentials. He traces the rise of the publish-or-perish syndrome. This book is about our "roots." And once we're familiar with our origins, our thinking about the way things are today stands to be changed.

Excerpt: "I must confess that my own attitude toward lecturing was deeply influenced by my experience in teaching Dante's *Divine Comedy* in a seminar. When I suggested to my students that they devise some modern hells for modern sins, two students in the seminar offered interesting hells for professors-who-neglected-their-students. They proposed that the professors be required to listen to lectures for all eternity. The only point of dispute between them was whether it would be worse torment for professors to have to listen to their own lectures or to those of an especially dull colleague. I have never been able to feel the same way about lecturing since." (p. 214)

A Free and Ordered Space: The Real World of the University

A. Bartlett Giamatti

New York: W.W. Norton & Co., 1988. 306 pp. ISBN 0-393-02622-1. (Orders accepted at 800/233-4830; $9.95 paper.)

The 19th president of Yale University, who taught Italian, English, and comparative literature at Princeton, then ended his career as president of the National

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Baseball League, has assembled in this book 24 essays which explore the role of the university in society today.

The essays, he explains, "represent one man's efforts to speak up, to say from the viewpoint of one partial and imperfect university president what he thought about the nature and purpose of the American university, about the principles of an undergraduate education, and about the pressures and affiliations connecting the university to our society." (p. 11) Giamatti considers topics as diverse as athletics, the role of the federal government, and the relationship between public and private universities.

This is a book of questions: Giamatti ponders, reflects, wonders, and proposes. His approach is not at all like Smith's, but this book also gets us back to our roots and challenges us to ask some very fundamental questions, about what are we trying to do, why, and how.

Excerpt: "Study should be lifelong but not life-consuming. If the life is consumed in study, the study is not shared; if it is not shared, it cannot be useful to others; if not useful to others, it plays no role in shaping a civil state in which all, the learned and the unlearned, may live a free and decent life." (p. 134) ◆

The Possible Dream

by Linc. Fisch

One of the most important days of my life was the day that I realized that I would never become a Great Teacher.

The day was a long time a-coming. I remember reading *Goodbye, Mr. Chips* in my youth. It left a lasting impression on me. I resolved to become a beloved teacher like Chips.

By the time I finished high school, tucked into a corner of my cranium was an image of walking down a leaf-strewn campus lane on an early September evening, bathed in the soft light from gas street lamps, on my way to library or seminar, leaving a faint trail of fragrant smoke from a Holmesian pipe.

I went to university and graduate school. I made good grades. I started teaching.

In my late twenties, a visiting professor spent a year on our campus. Woody played the banjo, sang folk songs, and was very popular with students. I saw him as an outstanding teacher, a Great Teacher. He was the embodiment of the charisma I hoped to have.

In my thirties, my Great Teacher image expanded to include a rating of 10 in each category on the form students used to evaluate my teaching. My dream continued. I would be a Star of the highest magnitude, a Triple-Threat Teacher, Super-Prof.

As I neared forty, reality set in. I had yet to find that beautiful autumn scene on campus. I reread *Chips* and to my surprise I found it didn't exist there, either. Students' evaluations of my teaching continued to be a mixed bag. I couldn't even master the ukulele, much less the banjo. I met many more Woodies and I found that I didn't match them any better than I did the original model. I had long since discarded my sophomoric pipe and other smoking paraphernalia that once cluttered my pockets. I had lived half my life and discovered that, alas, I would not, could not be a Chips.

That was The Day. Frustration. Depression. Quiet desperation. (I learned recently that such a malaise is not uncommon in mid-academic life. One researcher calls it Professorial Melancholia and is beginning to study it.) I even considered a permanent move into administration.

That day was, as cliché has it, the beginning of the rest of my life. In the next several years, I took a long look at myself, though I realize now that it was not an organized introspection undertaken consciously. I drifted through several new assignments. I did additional graduate work. I explored a few tangents. I became better acquainted with myself.

I had occasion to retake some vocational interest and preference tests. I found that scientific areas, dominant earlier, were now balanced by artistic areas. Here and there, I participated in exercises that revealed my learning, teaching, and achieving styles. I submitted to a well-known personality inventory (the ENFJ name tag from that experience is still tacked to the bulletin board over my desk).

I also noted that many of the "stars" of teaching that I knew sometimes flickered; they had weaknesses as well as strengths. I realized that the ways they deployed those strengths were what produced excellence in their work.

During this time, I did some new things and I did some old things differently. I found myself naturally gravitating toward the things I could do well. If I could not adjust my deficiencies, I moved to areas where they played a lesser role in my life.

The end result was of great importance: by no longer dreaming the impossible dream, I found that I was free to move toward accomplishing a possible dream.

(Note: This piece, excerpted from a longer article in the Professional and Organizational Development Network's To Improve the Academy, *vol. 9, 1990, pp. 3-4, is reprinted with the author's permission.)* ◆

"*'To instruct'* means to put in, it means to inform, it means to furnish with knowledge and information. 'To educate,' from the Latin, *educare*, *ex-ducare*, means to bring out of, or to lead forth.

"Instruction, in other words, leads on to education, but they are not the same. You instruct your students, but you hope that they educate themselves through that instruction."

— Robert A. Ferguson, from "The Nine and a Half Commandments of Good Teaching," in *Teaching at Chicago*, 1990, p.7

The TEACHING PROFESSOR

Volume 5, Number 7 August/September 1991

Make the Most of Written Feedback

Feedback from faculty can contribute significantly to student learning. Sometimes our feedback is verbal, delivered in class or in an office exchange. Other times it's in writing, comments on papers justifying a grade or scrawled in the margins beside a problem or an essay answer. Written feedback carries weight because it's individual, not a general comment or a summary of conclusions that apply in most cases.

Despite its potential, faculty often give written feedback perfunctorily. It's good to occasionally analyze how we use this form of feedback and remind ourselves of its power.

Begin with a mundane, but basic matter. **Can students read your writing?** One instructor discovered this problem in a most embarrassing way. A student pointed to a written comment that she couldn't read; the instructor found he couldn't read it either. If your writing isn't always clear, encourage students to ask for translations. And work to make it legible.

Do you give enough feedback to convey the message? Marginal word comments — "vague," "redundant," "superficial," "unclear" — can cause problems.

First, if this feedback is to be useful, students must know precisely what these words mean. Some instructors provide students with a key on which editorial symbols and word comments are defined.

Second, the students must know the focus of the comment. Is it a single sentence, a whole paragraph, or the entire answer? It might be more helpful to describe or explain: "This idea is unclear because ..." or "You don't need this sentence because the previous one says the same thing."

Finally, students tend to read our comments without rereading what they wrote. So, we need to encourage them to read the cause as well as the effect. And, as we write comments, we should remember the student inclination to read them out of context.

Is your feedback timely? The benefit of feedback depends largely on how quickly our students get it.

But we want to provide quality feedback, which takes time. This tension isn't easily resolved. It generally means making some compromises, if we're to survive and enjoy the academic life.

Many times problems of handwriting, incomplete comments, and delayed feedback result from instructor overload. If we had more reasonable teaching loads, the problem would probably diminish. But being unable to fix that in this article, we need to find ways of coping with realities that may not change soon.

Realistic Suggestions

Providing quality written feedback in reasonable amounts of time requires time management skills. Do as you advise your students: don't put off work until the last minute. Pace yourself, dividing reading and grading tasks across several days.

Consider shortcuts too. Some instructors provide detailed feedback for only part of a paper, using two or three pages to illustrate the kind of attention needed throughout. Some have resorted to rubber stamps and stickers to provide part of the feedback — and frequently a bit of humor as well. Shortcuts can be justified to the extent they help you provide more timely feedback and make grading tasks more manageable and personally satisfying.

Part of the justification for the less-isn't-always-bad philosophy of written feedback stems from concerns about overwhelming with feedback. **Can the student process and improve from your feedback?** When the performance isn't particularly good, we sometimes go overboard pointing that out, correcting every error and deficiency. This kind of feedback may have exactly the opposite effect from what we intend: the student, possibly not a very confident or empowered learner anyway, decides it's hopeless to try. Our feedback should encourage and help the student improve. Too much feedback may jeopardize those goals.

It may not be just the amount of feedback. **Do you mix positive and negative?** Sometime after you've finished a set of papers or homework problems, go through a random number of them and count the positive and negative comments. Usually, those numbers show our propensity toward negative feedback. Yes, students need to know what they did wrong. But knowing what they did right also helps them improve: they can do more of that next time. Positive feedback can be especially inspiring to students not doing well. To receive a D is demoralizing, but it helps to know that at one point you were brilliant — or something close to it. So, consider the positive in your feedback.

Written feedback can really help students learn to write and think better. We need to bear that in mind and commit to providing quality, individual feedback. ◆

Career Attitudes of Senior Faculty

A team of researchers at Virginia Commonwealth U. surveyed 1,564 "senior" faculty at six institutions in central Virginia. (They defined "senior" as full, associate, or assistant professors with tenure.) Of those surveyed, 74% responded; the mean age was 50. The survey explored the career attitudes of these faculty.

It produced a lot of interesting findings. For example, "when faculty were asked to list their most important professional accomplishments, 53% of the entries dealt with teaching-related activities, 25% with research/scholarly activities, 11% with service-related activities, and 11% with other activities." (p. 221)

Most other surveys of faculty aggregate the data, presenting the professoriate "as if it were a single homogeneous group." (p. 222) In this study the researchers grouped attitudes by disciplines. Some important differences emerged.

Humanities faculty are most likely to:

- spend the most hours per week working;
- devote the highest percentage of this time to teaching;
- have been motivated to enter the profession by the desire to teach;
- list teaching as their most important work;
- find it difficult to separate work and leisure;
- collaborate least with colleagues;
- say they're stuck in their present jobs;
- report a gap between their expectations for the profession and reality.

Social scientists are most likely to:

- have been motivated to enter the profession by the academic lifestyle;
- list research as their most important work;
- want to do further research in the future.

Natural scientists are most likely to:

- devote the highest percentage of their time to research;
- list research as their most important achievement (with social scientists);
- find institutional community with colleagues from various departments other than their own;
- report working less hard than others in their disciplines;
- maintain that they're least likely to hold jobs outside the academy.

Health professionals are most likely to:

- spend the most hours working per week (with humanities faculty);
- devote the highest percentage of their time to service and the lowest percentage to teaching;
- move to other institutions;
- spend an extra five hours a week in leisure and family activities;
- work with colleagues on professional matters;
- find high correspondence between expectations for the profession and reality.

Other professionals are most likely to:

- work the least hours per week (though still far above the national work week of 40 hours);
- devote the highest percentage of their hours to creative/other scholarly activities and the least amount to research;
- spend five extra hours a week in leisure and family activities (with health professionals).

Despite these differences, however, areas of commonality do exist. The researchers discuss these, concluding, "Our evidence supports the view that senior faculty remain internally controlled, vital, and productive. Ninety percent express overall satisfaction with their careers, and nearly as many would choose an academic career if they could make the decision again. Level of satisfaction does not vary significantly by race, gender, or academic discipline." (p. 225)

Reference: Robert A. Armour, Barbara S. Fuhrmann, and Jon Wergin, "Senior Faculty Career Attitudes: Implications for Faculty Development." ***To Improve the Academy: Resources for Student, Faculty, & Institutional Development*****, Vol. 9 (1990), pp. 217-230.** ◆

The
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Forum

To Call or Not to Call

At the recent Faculty College 1991 sponsored by the U. of Wisconsin System, a lengthy discussion — sometimes heated — took place over the issue of whether faculty should call on students in class.

Those who favored calling on students cited the following reasons:

- It overcomes the problem of the prolonged silences while the instructor waits for a volunteer.
- It keeps students alert, on edge, ever aware that it may be their turn next.
- It encourages students to come to class prepared, having read the material or done the homework problems.
- It shows that the instructor is serious about student involvement. It's a strategy for coping with rampant student passivity.
- It encourages the development of verbal communication skills. It helps students learn how to think on their feet.
- It prepares students for the "real" world, where in most jobs they will be "called on" for answers.

Those who don't like to call on students had these reasons:

- It provokes excessive anxiety in some students — and it's difficult to identify which ones by looking at them. For those anxious students the only benefit is firsthand experience dealing with terror.
- It can intimidate both the victims and their classmates.
- It encourages students to contribute not because they *want* to, but because they *have* to.
- It embarrasses them, when maybe there's a good reason they don't understand the question or know the answer.
- It may decrease volunteer participation by reducing pressure to volunteer.
- It has a chilling effect on classroom climate and makes it more difficult to create an open, interactive environment conducive to learning.

The discussion didn't resolve the issue in any definitive way, although it certainly made individual positions clearer as some faculty responded to some arguments more than others. Certainly success or failure in the classroom does not hinge on this issue, but the issue does show the complexity inherent in even basic instructional decisions.

Deciding to call or not to call on students also demonstrates the vital link between instructional strategies and classroom context. As one participant observed, "I call on students, regularly ask them about the practice, and never hear the kind of objections being raised here." In other words, *what* you do isn't nearly as important as *how* you do it. ◆

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The Lecture Has Its Enemies

No teaching method is without enemies. It's not that the lecture has more than other methods. It's just that those who lecture need to know and confront its enemies.

This list of lecture enemies comes from Roger T. Johnson, a professor of curriculum and instruction at the U. of Minnesota. Part of a presentation Johnson made at Baylor U., it appears in *Baylor Education* (Winter 1990, pp. 11-16).

Enemy #1. Students "preoccupied with what happened during the previous hour or with what happened on the way to class." Students must focus on the subject at hand or they miss whatever comes to them via the lecture.

Enemy #2. "Emotional moods ... block learning and cognitive processing of information." Some students don't like lectures, required courses, 8 a.m. classes, humanities courses, and a host of other possibilities. Anger, frustration, and unanswered objections all stand in the way of learning. These emotional reactions may not have visible manifestations and the lecture method doesn't provide means for their expression and resolution.

Enemy #3. Students sleeping, reading, writing, and listening (but not to the lecture). During the lecture students may engage in other activities.

Enemy #4. Students not understanding but mechanically writing down what the instructor says. "Such students often learn material incorrectly and incompletely .... In order for lectures to work there has to be some means of checking the accuracy and completeness of students' understanding of the material."

Enemy #5. Students "isolated and alienated," who "believe that no one cares about them as persons or about their academic progress." Learning rarely occurs well in a vacuum. Most learners thrive on the feedback and involvement of others, especially significant others, like teachers.

Enemy #6. "Entertaining and clear lectures that misrepresent the complexity of the material being presented. While entertaining and impressing students is nice, it often does not help students understand and think critically about complex materials."

Faculty Portraits

Editor's note: We received the following letter from a subscriber. She's exploring an interesting area and we'd like to encourage you to help her. Send your responses to Teaching Professor *Editor Maryellen Weimer at her Penn State address and she'll pass them along. Respond by Oct. 15, please.*

I recently joined the college faculty ranks and have been asked by family and friends, not familiar with college routine, what it is I now do for a living. Their interest has started me wondering about how the professoriate is portrayed in the media. I've been thinking about college teachers I've seen in films and on TV shows. I'm asking myself, do these fictional faculty images convey the sort of strength I associate with portrayal of other professions, like medicine and "Marcus Welby, M.D." or law with the "LA Law" contingent?

College teachers ... in films and on TV shows: Do these fictional faculty images convey the sort of strength I associate with portrayal of other professions ...? Do these portrayals generate the understanding and respect our profession deserves?

I think the question is important. We worry about reward and recognition for teaching. We are concerned about who is and is not choosing the academic profession. We know that many faculty select teaching styles modeled after faculty they have seen and admired. We know that students come to our classrooms with expectations which may have been influenced by media portrayals. Burnout may be influenced by self-perceptions, which may well be affected by these media images. Do these portrayals generate the understanding and respect our profession deserves?

I'd be interested in exploring these images and the perceptions of them with readers of *The Teaching Professor*. To start them thinking, the following lists TV shows and films in which college teachers appear:

"thirtysomething" (TV)	Gary Shepherd	English
Paper Chase (TV/film)	Prof. Kingsfield	Law
Indiana Jones (film)		Archeology
The Absent-Minded Professor (film)		Science
"A Different World" (TV)	Col. Taylor	Math
Educating Rita (film)	Frank Bryant	English
"Gilligan's Island" (TV)	"The Professor"	Science
The Eiger Sanction (film)		Art

If they'd like to add examples to my list, that would be welcome. As they consider this list, I'd be interested in the adjectives they'd select to describe individuals, as well as words they'd attach to the group as a whole. Do they identify with any of these characters and their teaching lives? Do any stereotypical patterns emerge from this total cast of characters? Some might share the list with their students and ask them for adjectives to describe fictional faculty members.

Finally, I'm interested in honest answers to the question of effect. Does it matter how we are portrayed in current media? And of course the inevitable follow-up — why?

— Leslie A. Swetnam, Metropolitan State College of Denver

Quality Assurance in Higher Education

by Willis M. Frankhouser,
Pennsylvania State U.-Berks

The Teaching Professor exists to promote instructional quality. As important as it is for those of us dedicated to excellence in undergraduate teaching to consider issues which pertain to our own classrooms, it is equally if not more important for us to consider the degree to which our institutions support our efforts. Good teaching will be the norm in a supportive climate; it will be the exception in an alien environment. Further, good teaching has as its primary goal optimal learning. The following represent my suggestions for establishing quality assurance indices relative to teaching in undergraduate education.

Class Enrollment Limits

Small classes allow for a greater probability of optimal learning than large classes. Large classes markedly constrain teaching styles, limit methods for monitoring student performance, and preclude meaningful teacher-student contact. Institutions which limit class size, particularly for first-year students, are clearly more likely to provide quality instruction. Published student/faculty ratio data is typically meaningless, given the creative ways in which these numbers can be generated. Numbers which represent the usual first-year experience would be far more telling.

Front Loading

Institutions committed to quality instruction and maximum retention will put their very best faculty in first-year classrooms ("front loading") and provide them with all the resources necessary to ensure optimal learning. These faculty will be full-time, valued members of their departments who have been rewarded with tenure and promotion for their efforts with students. A list of faculty teaching first-year courses — including the rank of those faculty, their years of teaching experience, and their records of professional development — would provide insights into the level of institutional support for teaching.

Faculty Accessibility

Retention relates directly to student-faculty contact. Institutions which provide quality instruction maximize faculty availability by setting standards for the number of office hours and encouraging and rewarding faculty who actively involve themselves with students outside the classroom in both academic and non-academic areas. Such institutions could provide information showing faculty involvement with student organizations and interaction with independent learning projects (apart from faculty research!).

Teaching Research Issues

Some good teachers are not good researchers; some good researchers are not good teachers; some good teachers are also good researchers; some individuals are neither good researchers nor good teachers. Let us recognize the diversity which exists in any faculty, allow for individual strengths — whatever they may be — to flourish, and put the teaching vs. research issue to rest. It is patently absurd and a tremendous waste of human resources to assume that *all* faculty can perform equally well in the complex interpersonal arena of the college classroom and the isolated competition of scholarly research.

Let us also allow for the broadening of the notion of scholarly activity beyond publication in esoteric and narrow professional journals to include a scholarship of teaching. Institutions viewing the teaching-research question in this way will be in the vanguard of the movement toward increasing the quality of undergraduate instruction and will have the personnel policies in place to prove it.

Innovative Pedagogy

Institutions truly committed to quality undergraduate instruction will be able to provide many examples of the ways in which they support good teaching. In addition, when these examples are compared with the mechanisms designed to support research within the same institution, there should be a striking equality. A blatant inequality in favor of research, particularly at the undergraduate level, should serve as a warning signal — not only to prospective students but to the institution as well.

Teaching can be exciting and rewarding, especially when it occurs in the context of a learning community. Colleges and universities dedicated to excellence in the classroom will be able to provide evidence of constant formative assessment and continuing efforts clearly aimed at optimal teaching.

Few institutions of higher learning would stand up well to the kind of scrutiny I advocate. Some would likely resist supplying this kind of information. In my opinion, however, parents and legislators are becoming increasingly suspect of what their dollars are buying in higher education. We can begin putting our own academic houses in order — or we can wait and allow others to do it for us. ◆

Confessions of a (Former) Remedial Lady

by Susan Andrien,
Massachusetts Bay Community College

There is a kind of tale that can only be told out of school. My grandmother used to tell this kind of story when she worked as a live-in cook for wealthy families in Pennsylvania and Delaware. At night, after the dishes were done, she would get together with the other cooks and domestic workers from the neighboring houses and they would tell stories about their employers, laughing until they cried for mercy. No matter who they were or who they worked for the themes were the same: the employers knew nothing about how the house was really run, and they had little regard either for the invisible people who kept the households running or for the work they did.

For many years, working in writing centers and as a teacher of remedial English at private colleges, I was reminded of my grandmother's stories. Whenever I got together with other teachers who did this kind of work, we would tell the same kind of amused and scornful tales about our colleagues and administrators, all the academics for whom the work of teaching writing was invisible — something that should have been taken care of long before students got to the college writing class. Although these colleagues had little interest or experience in teaching writing, it seemed to us that they assumed that the job was mundane, obvious, and beneath their abilities, and tended to make hilariously authoritative pronouncements about how it ought to be done. Laughing with my fellow remedial ladies, I recognized the subversive note that comes from the habit of silently witnessing, saving the tale for later telling.

Of course, there were good reasons why we felt unable to speak openly. Developmental teachers are seen as a kind of support staff at many academic institutions, a civilized answer to a disagreeable fact of life. Like domestic workers, they are a means to get the unsightly debris of the educational process out of sight; it is not their place to raise questions about the practices that prevail in mainstream classrooms. In the traditional model of higher education, remedial courses and programs have always been seen — when seen at all — as external to the real business. And traditionally, that business has not been very seriously concerned with making education accessible to people who do not already speak its language.

Behind Closed Doors, a Subversive Challenge

It is no wonder that my colleagues and I felt like subversives. What goes on behind the closed doors of the writing center or remedial classroom challenges one of the basic premises that underlie higher education: the unspoken agreement not to look too deeply into the relationship between academic performance and privilege.

Fortunately, this kind of upstairs/downstairs mentality cannot survive at a community college. Open admissions means that we accept everybody who cannot get past the butler at four-year schools. If we hide away all of the students who have not mastered writing before they get to us, our classrooms will be empty and the remedial closet very crowded. Furthermore, the diversity of our students' backgrounds prevents us from making the usual genteel distinctions between remedial and college-level students that prevail at schools with selective admission policies.

In community colleges we cannot marginalize language and the other invisible abilities that students "should" have when they come to college. We need to do in all of our classes what the remedial lady has traditionally done for those few misfits — develop an instructional approach that accommodates our students' diverse levels and rates of learning.

Given the challenges that we face at this point in our history, I do not believe that remedial ladies can continue to take refuge in our habitual isolated role. We need to work on our campuses to promote understanding of how language can be learned and taught. This may mean that we need to tell our tale to everyone we work with, in all disciplines, and listen to their tales as well.

Remedial Domestics of the World, Arise!

We should get out of the habit of looking to our colleagues in four-year schools to solve this problem for us; by eliminating students with visible language needs from their classrooms, these institutions have perpetuated the conditions that obscured the need for what Elisabeth McPherson calls "conscious, discipline-specific language instruction" in the first place. In short, they have kicked the problem downstairs to us. If the traditional view of the role of language in education is to be changed, diverse linguistic communities like ours will need to play an active role. In other words, we must practice what we preach to our students and take the risk of speaking as knowledgeable members of our community.

If, on the other hand, we continue to function as isolated language experts, we play a passive part in keeping faculty in the classrooms from knowing about language and how it is learned. It takes years of close work with students — and here I speak from my own experience as a slow learner — to finally realize that correcting students' grammar really does not have any effect at all on their ability to use correct grammar in writing. The subtleties of teaching language seem to be something that each teacher has to learn for herself.

And if we remedial ladies have learned anything in our long records of service, it should be this: you cannot learn to be an expert when the authority is vested outside yourself. This is true for students learning language and true for faculty learning to encourage language use in their classrooms. Like all discourses, that of language teacher has to be acquired from within.

Note: Reprinted with permission, this material has been excerpted from an article in Massachusetts Bay Community College's journal of teaching, learning, and professional development, The Educational Forum *(Vol. I).*

This journal illustrates the new kind of scholarship called for in the Carnegie Commission's recent report, Scholarship Revisited. *It's particularly relevant for community college educators, who generally do little traditional research but possess untapped reservoirs of experience and ideas. Copies of this issue (and an upcoming Fall 1991 issue) are available for $5 each. Send checks only to: Massachusetts Bay Community College, 50 Oakland St., Wellesley Hills, MA 02181; attn: Elizabeth F. Fideler.*

Study Groups Pay Off

"Study groups improve learning by giving students the opportunity to discuss problems raised in the course, to read and comment on each other's written material, to aid and tutor each other in drill exercises, to test each other's knowledge, to share the cost of expensive (possibly optional) texts, and to learn the value of cooperative learning endeavors." So writes Professor H.J. Robinson, who teaches philosophy at the U. of Guelph and has developed an interesting mechanism for using study groups.

These study groups are formed by the mutual agreement of four, five or six students. They must register their group with the instructor, providing their names and student IDs. Groups may expel or add a member by unanimous vote. If group membership falls below four, the group is automatically disbanded unless the members vote in a replacement. Groups may form and register up until the last day of class. No student may belong to more than one group and no student is required to belong to any group.

Every group organizes its own activities. The members decide whether or not to elect a leader. They decide where, when, and how often to meet. And most important, they decide what to do in their meetings.

Students who are members of a registered study group get bonus points for each course assignment, provided their group has registered prior to the assignment due date. The bonus is based on an average of all the individual grades received by group members. If the group average is A, all members receive three percentage points, if it's B, two percentage points, and if it's C, one percentage point. If a student received an A on the assignment, but the group average was C, the student still receives one percentage point.

Robinson has just started using this strategy, but to date between 60% and 80% of the students in a given course have elected to join a study group. And they've encouraged him to continue the strategy. Most groups form early in the course when students don't know each other well, so he hasn't had problems with all the capable students joining the same group.

College Degree a Good Investment

Sometimes it seems the only reason students can give for being in college is the money they'll earn after completion. We know and readily pontificate about the other merits of a college education — as well we should. However, the economic benefits of a college degree are not insignificant, and it's useful to have the facts at our fingertips when advising a student on the verge of dropping out or another unsure about moving from a two-year to a four-year program.

Some researchers calculate what they call the "private rate of return" to a college education. They divide the difference between average posttax earnings of college graduates and high school graduates by the sum of the private, unsubsidized costs of education plus forgone earnings. Suppose that a college graduate earns $36,000 annually, compared with $22,000 for a high school graduate. The difference, $14,000, is divided by the cost of the college education, plus earnings lost while attending college, say $102,000. The resulting 14% is considered the private rate of return for a college education.

Two fairly recent reviews of research have summarized most of the inquiries in this area. Elchanan Cohen and Terry Geske synthesized evidence from nine studies between 1940 to 1976; the rates reported ranged from about 10% to 21%, averaging 13.8%. Larry Leslie and Paul Brinkman looked at 22 studies between 1940 to 1982; the rate ranged from 7% to 18% and averaged 11.8%.

Leslie and Brinkman felt the rates overestimated the impact of the college degree because background characteristics and ability weren't taken into account. When they reconfigured the data and controlled for these two variables, the averages from the two reviews could be adjusted to 10.9% and 9.3%.

The researchers caution that these are "rough" estimates, but they compare favorably with benchmark rates for alternative investments. A 10% rate of return across a 30- to 40-year career sounds pretty attractive to most investors, especially these days.

References: Elchanan Cohen and Terry G. Geske, "Benefit-Cost Analysis of Investment in Higher Education" (Working Papers in Economics, U. of South Carolina, College of Business Administration, Division of Research, 1985), and Larry L. Leslie and Paul Brinkman, "Rates of Return to Higher Education" (in John C. Smart, ed., *Higher Education: Handbook of Theory and Research*, vol. 2, Agathon Press, 1986).

For more information, see chapter 11 in Ernest T. Pascarella and Patrick T. Terenzini's How College Affects Students *(Jossey-Bass, 1991).*

Ikura — A Fish Story

by Jon Sperling, Queens College, City U. of New York

"WELCOME. Not everyone is going to welcome you; not everyone will know you're new on campus. Believe me: you are very welcome. We are glad you are here."

It was Freshman Orientation, and I'd been assigned the "sweaty palm" task of following the president and dean of students with yet another speech to some 800 prospective students fidgeting in the vast auditorium.

A furtive glance at my watch — I was just a minute into my speech, with 29 minutes more to go. On the lectern lay the printout of my talk, target topics capitalized and underlined, with last-minute ideas jotted in the margins.

"COLLEGE ISN'T HIGH SCHOOL," I reminded my audience.

"WHAT'S THE PRIMARY GOAL OF THIS COLLEGE? — Undergraduate education. Call us a factory, if you will, and our product of manufacture is the EDUCATED CITIZEN." I'd dredged that one up from somewhere in my past — perhaps my own Freshman Orientation at the same school — and now it was my turn to say it. Holy Drivel, and 20 more minutes to go!

As there sometimes comes a lull in a battle, and every hurricane has its eye, I suddenly found myself in a mental calm, able to drone on from my notes while observing myself from an objective distance. I felt something was amiss. I was speaking, but I didn't have the students' attention. They were probably checking their watches more frequently than I.

It was time to present something beyond the ordinary pap, something memorable. It was time for a *story*.

The Essence of Fishing

"Each spring I go trout fishing in the mountains with some of my colleagues. I don't know if trout fishing is an art or a science. My friends are artists, and they always catch fish. I'm a scientist, and I rarely catch anything. I refuse, however, to draw a conclusion from that observation. I live in hope.

"The previous year, having caught nothing at all, I watched in awe as a young fisherman brought in three trout in as many minutes. He was using an astoundingly long, collapsible pole and worms. Aha, I thought, so that's the secret! I swore that the next year I would return and use his method and fish the place clean."

At this point I stepped in front of the lectern and held up a black cylinder about four feet long. With a flick of my wrist and forearm, the cylinder suddenly extended to 14 feet. I could hear some gasps and a beginning ripple of applause. I continued:

"So, this spring I was back, outfitted like some Rambo of the River, with close to three hundred dollars worth of clothing and gear, including my telescoping pole and very juicy worms. I caught *nothing*. Not far from me was the same young man, wearing jeans, sneakers, and a T-shirt, and catching fish every few minutes. How embarrassing!

"It was time to spy! I watched furtively. He too had the long pole and was dangling his bait in typical trout hangouts. But wait! He was using salmon eggs, not worms. Eureka! I had salmon eggs too!

"For the next hour I fished with my salmon eggs. I caught *nothing*. This went beyond embarrassment. I was frustrated. I was humiliated. I was *desperate*. Spying hadn't worked, so it was time for the direct approach. It was time to ask questions.

"Humbly, I approached the young man and I inquired how he managed to catch so many fish. He asked to see my line.

" 'Your hook is too big,' he told me, and replaced it with one of his own hooks. 'Your weight is too big,' he went on, and replaced it with a smaller one of his own. 'You don't need that,' he said, pointing to my float. 'Try this. It's a strike indicator,' and he affixed a small, brightly colored piece of plastic to my line.

"OK, fine, I thought, but that couldn't be all there was to it.

" 'Wait,' I said. 'I'm using salmon eggs, but they don't seem to work.'

" 'Let me see your salmon eggs,' he responded. 'These aren't the right eggs.' He handed me a paper cup partly filled with soft, pink, almost clear, and exceedingly smelly, salmon eggs. How different from mine, which smelled of petrochemical preservative and had the consistency of rubber.

" 'Here, take them,' he said. 'Put two or three on your hook and bounce it along the bottom.'

"I had another question. 'Why not worms?' I wanted to know.

"What he told me amazed me. 'Last year, worms worked well on this river. This year, the fish like salmon eggs.'

"I had one last question: 'Where can I buy these salmon eggs?'

" 'Japanese restaurant,' he said, grinning. 'Just ask for *ikura*.'

"So ended my first lesson in Fishing 101. I walked back to the river — and within two hours I had caught 13 trout, one over the legal limit.

Lesson for the Trout Stream of Life

"The point: To get the best education, you must be desperate and bold enough to ask for help and advice. You will find many kind and generous teachers and students here who will listen to your questions and help you answer them."

It was over. I had filler material for another few minutes, but I had delivered the real heart of my message. I concluded:

"You know, you might see someone fishing in a river, dressed in the costliest fishing attire and sporting the most hi-tech gear. I suppose that proves he or she is a fisherman. But the real question is, can that person catch fish?

"You will eventually get a degree. It will help you *get* your first good job, but *keeping* that job will depend not on your *diploma*, but on your *education.*

"From a business perspective, the education system presents an alarming picture. It is one in which too little is expected of too many, results are sacrificed to bureaucratic convenience, and professionalism — particularly teacher professionalism — is discouraged."

— David T. Kearns, Winning the Brain Race: A Bold Plan to Make Our Schools Competitive, co-written with Denis P. Doyle (1988)

The TEACHING PROFESSOR

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Making Students Think

by Jerry Greene, Barstow College (CA)

Like many teachers, I am always searching for ways to encourage student involvement and critical thinking. Lately I have been trying to compile a short-list of the methods that have worked well, so I can put it up on my bulletin board and periodically use one of the ideas to spice up a lecture or lab session. Some of the ideas are geared to science, since that is what I teach, but most can be modified to apply to any discipline.

Here are five ideas that have worked well for me:

1. Dissection of a journal article

Find an interesting, topical article from a professional journal and make copies of choice sections. Prepare a set of critical thinking questions that can be answered by careful reading of the passages. Let students work in groups to come up with the answers, and have a forum to allow them to present their answers to the rest of the class.

In some professional journals (e.g., *Journal of the American Medical Association*, *New England Journal of Medicine*) the technical language seems beyond many students. However, when provided with definitions of unfamiliar terms and encouraged to read carefully and analytically, most student groups can make sense of the articles. This activity encourages methodical, analytical thought, and shows the students that even difficult research essays are not beyond their grasp if they put their heads together.

2. Ethical application

Pick some issue concerned with ethical applications of course content and allow an open-ended discussion. This tends to result in something of a talk show, with students expressing and defending their opinions. Two examples of topics that have worked well in my classes are: "Should medical research on diseases such as AIDS and cancer be performed on intelligent, helpless monkeys, or should we allow research on lifetime criminals convicted of multiple violent crimes?" and "Should the information gained from amniocentesis and ultrasound be used to choose to abort a fetus with serious mental or physical handicaps?"

3. Design of a lab experiment

Give students a list of materials and a question to answer by experimentation. Before they can begin the experiment they must submit a procedure which leads to an answer. This avoids the "cookbook" scenario of many labs, and instead requires students to think about the "why" of all steps in the procedure.

4. 20 questions

After students have read a section of the textbook, and perhaps have been lectured on those topics, play a game of 20 questions. The teacher thinks of some concept, process, or thing in relation to the topic, and students must ask yes or no questions to find their way to the answer. For example, for the circulatory system, the teacher might be thinking of hemoglobin stored in the red blood cell which does not contribute to the partial pressure in the plasma. Student questions leading to the answer might be: "Does it have to do with the blood?" "Does it have to do with oxygen?"

5. Group testing

For a five-credit class with a lab I give five or six major exams (i.e., midterms) during the semester. For one or two of these I allow groups of two to four students to take the test together. This seems to work very well in encouraging cooperation, preparation, and learning during the exchange of ideas. Of course this technique necessitates changes in the way individual students are assessed. ◆

Wait a Minute ... Who's Doing the Teaching Here?

by Larry Berthelsen, Odessa College (TX)

Like most instructors, I am often overwhelmed by the number of letters, fliers, pamphlets, and various packages received from publishers announcing their new texts or editions. Recently I've been impressed by the sheer *quantity* of ancillary material accompanying these offerings.

One such package recently received contained, in addition to the text itself, 13 — yes, *13* — different items in the ancillary package. The ol' tried and true "instructor's manual" was listed first, with the standard lecture outlines, teaching notes, and answers to all end-of-the-chapter questions included. In addition, a "computerized instructor's manual" was offered so one could reorganize or restructure without having to rework the printed one.

Also included were three different types of "test banks": the standard printed version with not only numerous objective and essay questions, but also "mini-cases" touted as being a great time-saving substitute for essays; a "computerized test bank"; and a system by which you can "order" tests by question number over the phone and have them faxed to you. Two different "study guides" were part of the package: one the traditional printed version, the other a computerized version referenced by page number for the student.

A set of videos comes with this adoption, one covering each section of the text. To accompany these, the teacher gets a "video instructor's manual" to assist in the use of the tapes. In addition, an "experiential exercises booklet" for the instructor is provided for each chapter, accompanied of course by full teaching notes. Transparency acetates and transparency masters, with teaching notes, are part of the package, as is a "computer simulation" program for decision-making exercises. Finally, there are several "separate modules" provided, covering material not found in the text, should the instructor decide to include them.

Packaged Instruction, Ready to Go

I think anyone who has ever stepped in front of a class would agree this represents a thorough teaching package. So thorough, in fact, that I wonder just how difficult it would be to teach this course. How much would you really have to know? How much, or perhaps how little, time would it take to prepare? How much effort? Methinks "not much" to all of these questions.

It's really not that difficult to present course material in an orderly, organized form to students with the help of an ancillary package like that described above. As a matter of fact, it's fairly simple. Use the course syllabus provided, the lecture outlines in the book, the video tapes for emphasis, the questions over each section from the study guide, and the test questions (and answers) from the computer disk, and there you have it — instant course. No muss, no fuss, no bother. No good, either. Instructors are robbing their students of the very thing they need most: themselves. Their insight ... their knowledge ... their experiences are what make for real "learning."

It's not difficult to understand why so many instructors fall prey to this trap. Time is of the essence to most of us. Between our preparation time, teaching and grading time, student advising, campus committees, and departmental activities, there is plenty to do. Textbook authors and publishers are well aware of this and attempt to capitalize on the dilemma by presenting "time-saving" packages as described above.

As instructors, we must be disciplined enough not to succumb to the temptation of making our teaching "job" easier. We must be able to view these teaching packages for just what they are — "ancillary." Webster provides the synonyms "subordinate" and "subsidiary" for the word "ancillary." Let's make sure we keep it that way.

Use the "teaching suggestions" and "lecture outlines" as guides to your classroom discussions, not as the basis for them. Use the "video instruction tapes" as examples and emphasis for what you've already covered in your discussions, rather than as replacements for them. Get some ideas for test questions from the numerous "test banks" offered, but be sure to cover what you discussed in class that was not in the text, or what you specifically emphasized because the class was more interested in it.

The bottom line? Teach your own class. If you rely too heavily on the ancillary packages, the class becomes too impersonal, too "cold." You notice it ... so do your students. Do yourself and your students a favor: *Don't let somebody else teach your class.*◆

"In many respects, American education in general [...] has suffered from a tunnel-vision perspective on curriculum. Tradition has outweighed experience when decisions have had to be made about what to embrace in our courses of study. Convenience has argued more strongly than pedagogical principles in discussions of program design, and poor decisions have sometimes been legitimized by ridiculing the critics who call for a reorientation of thinking about what is taught, how it is taught, and by whom it is taught."

— Frank Medley, "Designing the Proficiency-Based Curriculum," *Proficiency, Curriculum, Articulation: The Ties that Bind* (Northeast Conference on the Teaching of Foreign Languages,1985), pp.13-14

The TEACHING PROFESSOR

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Documenting Excellence in Teaching

How should we measure instructional excellence? Not just with end-of-course ratings, many faculty respond. And we agree. There's something incomplete, almost incongruous about evidence of effectiveness that's entirely quantitative and exclusively from a single source, students. For most faculty, student evaluations simply don't tell the whole story. However, many faculty have difficulty identifying other ways to measure or document teaching performance.

Several years ago the Canadian Association of University Teachers proposed the idea of a "teaching dossier," a qualitative assembling of evidence of good teaching. They say that "it is to a professor's teaching what lists of publications, grants, and academic honors are to scholarship." Kathleen Brinko, Coordinator of Faculty and Academic Development at Appalachian State U., used the CAUT document to develop the following list of items which might also demonstrate instructional excellence. This list appeared in an Appalachian State newsletter, *The Center* (vol. 4, no. 1), and is reprinted here with permission.

A "teaching dossier," a qualitative assembling of evidence in support of good teaching, " is to a professor's teaching what lists of publications, grants, and academic honors are to scholarship."

I. The Products of Good Teaching

1. Students' scores on teacher-made or standardized tests.
2. Student laboratory workbooks and other kinds of workbooks or logs.
3. Student essays, creative work, and project or field-work reports.
4. Publications by students on course-related work.
5. A record of students who select and succeed in advanced courses in the field.
6. A record of students who elect another course with the same professor.
7. Evidence of effective supervision of honors or master's theses.
8. Setting up or running a successful internship program.
9. Evidence of the effect of courses on student career choice.
10. Evidence of help given by the professor to students in securing employment.
11. Evidence of help given to colleagues on teaching improvement.

II. Material From Oneself

A. Descriptive material on current and recent teaching responsibilities and practices:

1. List of course titles and numbers, unit values or credits, and enrollments with brief elaboration.
2. List of course materials prepared for students.
3. Information on professor's availability to students.
4. Report on identification of student difficulties and encouragement of student participation in courses or programs.
5. Description of how computers, audiovisual equipment, or other nonprint materials were used in teaching.
6. Steps taken to emphasize the interrelatedness and relevance of different kinds of learning.

B. Description of steps taken to evaluate and improve one's teaching:

1. Maintaining a record of the changes resulting from self-evaluation.
2. Reading journals on improving teaching and attempting to implement acquired ideas.
3. Reviewing new teaching materials for possible application.
4. Exchanging course materials with a colleague from another institution.
5. Conducting research on one's own teaching or course.
6. Becoming involved in an association or society concerned with the improvement of teaching and learning.
7. Attempting instructional innovations and evaluating their effectiveness.
8. Using general support services such as the Education Resources Information Center (ERIC) in improving one's teaching.
9. Participating in seminars, workshops, and professional meetings intended to improve teaching.
10. Participating in course or curriculum development.
11. Pursuing a line of research that contributes directly to teaching.
12. Preparing a textbook or other instructional materials.
13. Editing or contributing to a professional journal on teaching one's subject.

III. Information From Others

A. Students:

1. Student course and teaching evaluation data which suggest improvements or produce an overall rating of effectiveness or satisfaction.
2. Written comments from a student committee to evaluate courses and provide feedback.
3. Unstructured (and possibly unsolicited) written evaluations by students, including written comments on exams and letters received after a course has been completed.
4. Documented reports of satisfaction with out-of-class contacts.
5. Interview data collected from students after completion of a course.
6. Honors received from students, such as being elected "teacher of the year."

B. Colleagues:

1. Statements from colleagues who have observed teaching, either as members of a teaching team or as independent observers of a particular course, or who teach other sections of the same course.
2. Written comments from those who teach courses for which a particular course is a prerequisite.
3. Evaluation of contributions to course development and improvement.
4. Statements from colleagues from other institutions on such matters as how well students have been prepared for graduate studies.
5. Honors or recognition, such as a distinguished teacher award or election to a committee on teaching.
6. Requests for advice or acknowledgement of advice received by a committee on teaching or similar body.

C. Other sources:

1. Statements about teaching achievements from administrators at one's own institution or from other institutions.
2. Alumni ratings or other graduate feedback.
3. Comments from parents of students.
4. Reports from employers of students (e.g., in work-study or an internship).
5. Invitations to teach for outside agencies.
6. Invitations to contribute to the teaching literature.
7. Other kinds of invitations based on one's reputation as a teacher (for example, a media interview on a successful teaching innovation).

Tests should be more for learning and for motivating than for measuring.

Clarify test objectives both before and after, with yourself and with students.

Be imaginative as well as careful, balanced, and precise.

Testing: Straight Talk

The late Kenneth Eble, whose work and ideas appear in various forms in our publication, concludes his chapter on tests in *The Craft of Teaching* (2nd ed., p. 151) with a concise set of suggestions that underscore much of what we know about the constructive use of exams. It's the sort of list that belongs where we will regularly confront its sound advice.

— Use a variety of testing methods.
— Always give feedback, promptly if possible.
— Tests should be more for learning and for motivating than for measuring. All three are useful.
— Regard the absolute worth and accuracy of testing with suspicion.
— Reduce in any way you can the threat tests pose.
— Don't grade all tests.
— Clarify test objectives both before and after, with yourself and with students.
— Be honest, open, and fair. Discuss tests both before and after.
— Let students be makers as well as takers of tests.
— Don't stress the trivial just because it is so easy to test.
— Surprise quizzes and tests which can't be completed in the given time may serve the teacher's ego more than the students' learning.
— Be imaginative as well as careful, balanced, and precise.
— Be generous.

Twelve Ways of Looking at a Blackboard

by Reloy Garcia, Creighton U. (NE)

In this high-tech era teachers often look askance at blackboards, most of which aren't even black any more. Blackboards are something math instructors still scribble on, and are good for leaning against, although they dust your clothing and make you sneeze. And we all cringe when badly angled chalk buzzes our teeth and jars our ears. This sometimes snobbish, always unfortunate attitude closes off many teachers from what can be a most effective and flexible aid to teaching through discussion methods.

In the first place, *the blackboard as table of contents or tour guide* is an excellent shorthand way to alert and focus the class, and to provide a visual structure of the overall class design, making it easier for students to follow a discussion, thus encouraging participation.

A student can more easily grasp the logical progression of the class when its X-ray is on the board, and even use the visual aid to structure note-taking. The shorter and more memorable the "leaderettes" — and the closer to what I call "student shorthand" — the better. This is an excellent focusing device, which every teacher knows who has sensed a class become quiet as written material appears on the board.

I see two alternatives for handling the "tour": to write the whole thing out in advance (it takes only seconds to write leaderettes) or to write the leaderettes for sections as they are taken. These options work equally well but, surprisingly, give a different "feel." One seems inductive (the one-at-a-time), the second deductive. The former allows the student to see how a plan is realized according to a scheme, the second how it is built brick by brick.

Whether one is posting the results of small-group discussions or of responses to questions, listing troublesome questions, listing "truth statements," key symbols and images, or examples, collecting student reactions or questions, or posting shorthands of critical interpretations, *the blackboard is a perfect basket*. Further, one can arrange or rearrange them as they are recorded, in whatever order suits the teacher's purposes. Let's say you ask, "What would you say is the key theme of Poe's *The Fall of the House of Usher*? What's the principle within his subject matter?" Student responses to questions serve as excellent starting points for discussions, particularly when labeled with their names: "Philip's Thesis," "Beth's Argument," etc.

A variation of this listing strategy employs *the blackboard as window*, for venting purposes, to open discussions of particularly difficult concepts or ideas. Students often harbor resentments or criticisms against demanding work and it's best to get these reservations out early to trace the causes of the resentment.

Or one can use *the blackboard as a "Portrait Gallery,"* listing the names of key characters if personalities are a relevant part of the content and recording student impressions and observations.

This is the age of film and television. Why not exploit the modern addiction to screen images and use *the blackboard as TV*? A chart or diagram, what I call a "Dramatic Tree," which *shows* how the concepts relate to one another, clarifies an otherwise muddy situation.

And I've used *the blackboard as a theme or motif guide*, to trace an image, phrase, or metaphor, or to track a concept such as "fertility and barrenness," or "guilt and responsibility" as it cuts across the material we're discussing.

Certain words hook the reader and concentrate the class, and *the blackboard can be used to hook and magnify*, just as some phrases, metaphors, themes, characters, etc. need magnifying to record their singular importance. In discussing *Oedipus Rex*, for example, you can't avoid the concepts of Fate, of collective obligations and individual responsibility. "Fate" and "Responsibility," written on the board, are good hook words. Inevitably a student makes a striking insight, which I write an abbreviated version of on the board. Occasionally, I underline or circle it for double effect, or write "Bingo" by it.

Sidekick, Explainer, and Referee

The blackboard is an excellent sidekick. Here the blackboard is a recorder, posting key points of an evolving discussion, greatly abbreviated, of course, so as not to slow its momentum. Often all that is needed is the key word of the student's question, opinion, or comment, perhaps tagged with a name, ready for instant playback later for deeper discussion. Once there are several of these, one may connect them to show their interrelationship.

In discussing difficult concepts, *the blackboard is an excellent explainer*. A chart or scheme on the board is an excellent way to show the relationships.

The blackboard makes an excellent referee. At the core of so much of what we teach in the college curriculum squirms human conflict. This must produce arguments and debates in the class; if these don't emerge under their own power, they must be dragged out with "forced debates" or with "reverse thinking" exercises, where students are forced to champion views they oppose. What better way of refereeing a debate than to draw a line on the board between opposing sides to record the arguments? At times a teacher must stand back to make room for students to argue.

A teacher probably can't summarize too much. I can think of no better aid for this than to use *the blackboard as a summarizer* to review the key elements of the discussion. Or, better, I erase whatever was on the board before and ask students to summarize from memory. At the end of a discussion, I commonly circle the pertinent phrase or concept on the board to focus attention on what we are summarizing.

Similarly, I often use ***the blackboard as a transition device***, either between sections or between classes. At the beginning of a class, I say, "Tell me one major concept we discussed last class." This connecting strategy is especially useful over a long weekend or when vacation has interfered with the continuity of a discussion.

And a Few Final Points

Incidentally, to write something that takes more than a handful of seconds, I get to the classroom early and write it out before my students arrive. I don't waste valuable discussion time writing extensive notes on the blackboard. Cursed with bad handwriting, I try to remember to print, and I always abbreviate to avoid slowing the class momentum. I say aloud what I am writing, both to eliminate confusion and to reinforce the point.

It doesn't take a genius to see that the blackboard, used properly, can encourage or extend class discussion, which is perhaps its chief virtue. Helping to start discussions, to record key points, and to summarize, the blackboard facilitates discussion because it opens up and involves the class in a common pursuit.

Perhaps because it poses no threat to the student, the blackboard helps to shift the burden of the discussion to students. Partly this is because the teacher is working for them, helping to record or shape their observations. What students think and say, the blackboard attests, is worth a public record.

Thus, the board doesn't substitute for class discussion; it forms part of a coherent classroom discussion and questioning strategy. Interestingly, the board deflects the teacher's impulse to lecture, drawing the teacher out from behind the lectern or desk, which is an added benefit — although it is an excellent complement when one does lecture.

One last thing: When you're done, clean the board.

> *"The classroom* is peculiarly the 'marketplace of ideas.' The nation's future depends upon leaders trained through wide exposure to that robust exchange of ideas which discovers truth out of a multitude of tongues, rather than through any kind of authoritative selection."
>
> — Associate Justice William J. Brennan, Jr., 1967

Open-Text and Open-Notes Exams: More Benefits!

by Brian Leung, Loyola Marymount U. (CA)

In describing the use of open-textbook, open-notes exams (*The Teaching Professor*, May 1991), Terry Liska and John Simonson pointed out a number of benefits, most notably are decreased test anxiety and allowing for higher-order thinking (for both instructors and students). I've been using open-text, open-notes exams for several years now in my counselor education classes, and I concur that the benefits of this practice clearly outweigh the costs. I have also discovered at least one additional major benefit, namely increased understanding and retention of ideas and concepts by the students.

To realize all the potential benefits of this practice, it is necessary, I believe, to prepare the students in advance — at the reading/study level. For the open-text part, I have routinely encouraged "cooperative reading" groups for reading the textbooks. That is, students get into reading groups and, after discussion of the content, they collectively turn in to me a sheet identifying:

- the main ideas in the chapter,
- potential implications for their work as future counselors, and
- areas of disagreement and why.

When they read together, I encourage them to make notes by the margins of the chapters so that they can refer to the content easily. Since they already know from day one that all exams are open-book, they quickly recognize the advantage in organizing the content as they read and discuss with their peers. By the way, these sheets are collected at the beginning of each class session and are often used as basis for class discussion. Sometimes, I designate a reading group to lead the discussion of the chapter.

For the open-notes part, I inform them that they may use notes during exams, but only two pages. (There's nothing magical about the number two; it's just what came to me at the time.) By limiting the pages of notes they can bring, it "forces" them to synthesize their notes prior to the exam. Specifically, they must engage in at least several of the following activities: re-read their notes one more time, and/or think over the important aspects of what they have written, and/or reorganize their notes, and finally write down the summary/synthesis. These activities demand not only another "pass" of the material, but a "deeper" level of processing of the material as well. This, in turn, increases the likelihood that the students will understand and remember the ideas and concepts longer *and* better (verifiable by student comments). This last benefit to me is the most important of all.

> *Would you believe ...?* "It has been estimated that there are something in the neighborhood of 100,000 scholarly journals, including about a thousand new ones each year. One reviewer who scans journals for articles that he summarizes for other journals laments, 'There are now more than forty thousand professional journals of science alone, and researchers in search of truth (and fame and tenure) are pumping articles into them at the rate of one every 30 seconds, 24 hours a day, 365 days a year.' "
>
> — Richard Warch, president of Lawrence U. (WI), in "Communities of Mind & Spirit," a paper presented at the Associated Colleges of the Midwest's March 1990 Conference on intellectual community and published in *Liberal Education* (November/December 1990), p. 8 .

The Teaching Professor

Volume 5, Number 9 November 1991

Why Groups Fail: Student Answers

Professors assign group work to help students learn. It gives students the chance to learn how to work cooperatively with their peers. The recent trend in business and other fields is to make decisions within groups rather than as individuals. Hence, group learning introduces students to experiences they're likely to encounter in the world of work.

But students have been known to complain about group work — in fact, to object to it quite strongly. Susan Brown Feichtner and Elaine Actis Davis decided to see if they could discover why.

They asked 215 students about their most and least positive group learning experiences. Based on 155 responses, the authors identify objectionable dimensions of group work and outline measures professors can take to make these experiences more positive — at least from the student perspective.

Structure plays an important role in the success or failure of a group. By a ratio of nearly 2 to 1, students claimed their worst experiences came from working in groups they themselves formed. The best experiences were when professors assigned students to groups.

The best group experiences also occurred in small cohesive groups. Four- to seven-member groups do very well, while smaller groups often lack resources and larger groups have difficulty working together.

Once the groups are formed, the type and amount of tasks they must complete can create problems. Feichtner and Davis found that students were much more likely to report a positive group experience from classes in which no class presentations or papers were required or in which only one of either was required. That's not a mandate to do away with presentations and reports, but it does pinpoint them as potential problem points where additional instructor involvement might be helpful.

Paradoxically, when students in groups took some form of group exam, they reported positive experiences. The authors think this may happen because group exams ensure that the success of the group does not rest on only the work of a few diligent members but on the efforts of everyone.

The peer evaluation also had unclear value. Some students claimed that peer evaluations worked well to pressure fellow students to cooperate and to prevent peers from getting "a free ride." However, peer reviews can also cause some real problems by destroying peer trust. One student noted, "I really got burned on the evaluations at the end of the term, and I did the same amount of work as anybody." (p. 81)

There are several strategies professors can adopt to make group work more beneficial and pleasurable from the student point of view. They can make at least some class time available for group meetings and include a substantial group performance component in the grading system. When group work accounted for more than 20% of the course grade, the majority of students reported having a positive experience. Other ways professors can enhance group work, based on student experiences reported in this survey, include:

- Explain why group work is relevant to them: 72 students claimed that this is probably the most crucial element in the success of a group. Show that group work is not simply busy work.
- Help them set realistic expectations.
- Create diverse groups.
- Give multiple opportunities to make decisions.
- Listen in on group discussions and offer advice.
- Provide immediate feedback.
- Let them sit in their groups during regular class time.

Student experiences, both positive and negative, don't necessarily prescribe sound group dynamics procedures. However, we can learn from student experiences and may make group work better by incorporating aspects of the positive experiences they describe.

Reference: Susan Brown Feichtner and Elaine Actis Davis, "Why Some Groups Fail: A Survey of Students' Experiences with Learning Groups." *The Organizational Behavior Teaching Review*, Vol. 9, No. 4, pp. 75-88. ◆

Five Minutes to Monitor Progress

by Ruth Couch, Arkansas State U.-Beebe

The five-minute writing, a favorite technique among instructors committed to the Writing Across the Curriculum approach, has several purposes:

- to allow students to see to what extent they have mastered the material,
- to let instructors see what points of confusion students have about lectures, projects, or reading materials, and
- to allow feedback between individual students and the instructor.

These purposes are very important in courses in which students must absorb considerable amounts of material; for example, introductory biology, economics, history, anthropology, and almost any other class. If used effectively, the five-minute writing is worth the time.

Ground rules for the five-minute writing should be simple: legibility should be the only mechanics requirement, unless there is a reason for doing otherwise. Normally, the grading is pass-fail only, or perhaps the instructor will do nothing more than recognize the submission of a writing. The writing usually works best at the beginning of the period, because it helps students focus their thinking on the subject, but it can be used at any time.

In general, five-minute writings are used strictly for the purpose of communication between the student and the instructor. An instructor can read 30 of these writings and even comment briefly on some of them in much less time than it would take to have 30 short conferences.

The five-minute writing can be approached in several ways. The simplest use of this technique involves asking students to summarize something. This technique, while helpful, will need variation so that brief writings will continue to be interesting and challenging for the class. Here are some of many alternatives that quickly and constructively provide input on students' mastery of material:

- To summarize an assignment as they would tell it to a family member or some other specific audience. In this case, they will need to choose the best method for sharing that particular item. Students will have to be knowledgeable in order to make decisions about tone and emphasis.
- To tell why they admired a certain historical figure, literary, scientific, or otherwise, mentioning highly specific points and giving reasons for what they say.
- To support one side of a controversial issue being studied. From the points they make, the instructor can tell if they are well informed.
- To compare the assignment with another one read recently.
- To write out the various steps they used to solve a problem.
- To tell what parts of the assignment are confusing to them at this point.
- To give progress reports on class projects or term papers. In this case, students should be asked for very specific material — names of books to be used in a report, for example. The students may also be asked to summarize the work they accomplished during their last session in the library.

No matter which option you choose, the five-minute writing has many advantages:

- It gives students a chance to see writing as a real act of communication, not just an exercise.
- It forces them to be realistic about their knowledge. Self-deceit becomes less likely. Either students will be reassured that they have mastered the material, or they will have evidence in their own handwriting that their knowledge is inadequate.
- It gives the instructor a chance to correct misconceptions and to restructure presentations for the next few class meetings.
- It provides a natural, convenient way to discuss problems with individual students and to make suggestions. In some cases instructors can see problems arising in time to prevent them. Students usually are very receptive to suggestions instructors make to them in personal notes on these writings.
- It helps students to get into the habit of writing quickly so that perhaps essay test questions will be less threatening.

Instructors who have not yet used the five-minute writing as a teaching technique may be surprised at the positive results.

The
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Focus on Research

What's the Problem?

Our students don't seem to have particularly good problem-solving skills. Why? What's the problem? What are they doing and what are we assuming?

Don Woods (whose work in this area we first referenced in the March 1990 issue) and a group of engineering colleagues at McMaster U. have tackled these questions. They collected data from students in various ways, including observing them solving problems, listening to them talk about problem-solving, and surveying them about the processes and procedures they used. From these data they discovered the following things:

- Students — be they first-year, seniors, or even graduate students — share common weaknesses in their approach to problem-solving.
- The students did not have "an organized method of defining or thinking about problem solving." (p. 40) They just did whatever came to mind first.
- "Students cannot describe what they do when they solve problems." (p. 40) Put another way, they respond superficially and incompletely when asked, "What are you doing?" and "Why?"
- These engineering and science students were weak in many of the necessary prerequisite skills. They didn't know how to budget their time, how to separate important information from unimportant, how to take notes and see structure. These weakness appeared in first-year students; surprising and somewhat depressing was their persistence in seniors.
- The ability to tackle problems with the creativity and analysis necessary to solve them was weak. They had trouble seeing other ways to view the problem. In another words, once stuck, they tended to stay stuck.
- At study sessions, students freely discussed their difficulties with the problems. As soon as the teacher (evaluator) showed up, students became silent.
- Students had difficulty with simple tasks that most instructors assumed that they could do. "These include drawing good diagrams, locating a coordinate axis system, identifying the system and choosing symbols to represent concepts, variables or unknowns." (p. 49)

Students had difficulty with simple tasks that most instructors assumed that they could do — drawing good diagrams, locating a coordinate axis system, identifying the system, and choosing symbols to represent concepts, variables, or unknowns.

This is not a pretty picture, but solutions are easy to find if we understand the problem. Moreover, instructional strategies do exist which address these problems. We highlight them regularly in *The Teaching Professor* and will continue to do so. But every so often we need to focus on the nature of the problem.

Reference: Donald R. Woods, Cameron M. Crowe, Terrence W. Hoffman, and Joseph D. Wright. "What is the Problem in Teaching Problem Solving?" From James L. Lubkin (ed.), *The Teaching of Elementary Problem Solving in Engineering and Related Fields*. American Society for Engineering Education, 1980, pp. 35-55.

Research Update: Cooperative Learning

Cooperative learning may seem to be the latest trend in higher education, but in truth it is old hat in primary and secondary education and has even been studied to some degree at the postsecondary level. Robert E. Slavin has identified 60 studies that contrast achievement outcomes in cooperative learning settings with results of learning via more traditional methods of instruction.

Even though college-level results are sparse, they do tend to confirm much of what Slavin and other researchers have found to be true of cooperative learning outcomes experienced by younger students. For all students, learning in groups does positively affect achievement — but with a couple of caveats.

Cooperative learning increases student achievement, if it incorporates group goals and individual accountability. Group goals arise out of students working together "to earn recognition, grades, rewards, and other indicators of group success." (p. 52) Yet, cooperative learning also depends on the individual learning and accountability of all group members. "For example, group success might depend on the sum of members' quiz scores or on evaluation of a report in which each group member contributed his or her own chapter." (p. 52)

Cooperative learning enhances not only learning, but also intergroup relations, acceptance of others from different backgrounds, and student self-esteem. "When students of different racial and ethnic backgrounds work together toward a common goal, they gain in liking and respect for one another." (p. 53)

Not all the important questions on cooperative learning have been answered. For example, is learning in cooperative groups an effective tool when the tasks involve higher order conceptualization? What sort of interdependence between group goals and individual accountability works best at the college level?

Not all researchers agree on how to study cooperative learning or what to make of the findings. The same can be said of almost any area of the teaching/learning enterprise that's been studied to this degree. Research must continue to investigate cooperative learning. However, after nearly two decades of research and scores of studies, a certain degree of consensus has emerged — we ought to be using cooperative learning more in our college classrooms.

Reference: Robert E. Slavin, "Research on Cooperative Learning: Consensus and Controversy." ***Educational Leadership*****, December 1989/January 1990, pp. 52-54.**

Class-Cutting Consequences

Students skip class. But why? And what happens when they skip?

Three researchers studied 56 full-time undergraduates at a small liberal arts institution to determine the causes and consequences of unexcused absences. The trio hypothesized that marijuana use, bar attendance, interest in the course, personal payment of college expenses, year in college, and major could be used to predict which students will skip classes.

Is learning in cooperative groups an effective tool when the tasks involve higher order conceptualization?

They found that marijuana and bars were by far the major causes of class cutting. "A regression analysis indicated that an increase in marijuana use and bar attendance by one time per week raised absentees by 1.3% and 2.1% respectively." (p. 990) Attitudes toward the courses also indicated a tendency to skip. As predicted, if students considered the material and/or professor boring, they didn't attend class as often.

Other reliable predictors of absenteeism included gender, place of residence, and year in school. In this study, women cut significantly fewer classes than men. "Males, whose risk-taking behavior seems more socially tolerated, had twice as high an absence rate as females (5.2% vs. 2.5%)." (p. 988) Also, students who lived with their parents skipped fewer classes, according to this study — parental pressure vs. the freedom of dorms or apartments.

What sort of interdependence between group goals and individual accountability works best at the college level?

Year in school, too, influenced absenteeism. First-year students and seniors attended class more frequently than sophomores and juniors.

This study failed to confirm several of the research hypotheses. The percentage of college expenses paid by the student was unrelated to absences. Another surprise: major had little effect. Social sciences and humanities majors cut classes only slightly more than business or physical science majors.

Some students believe that cutting classes has no effect on their grades. They deceive themselves. Absenteeism significantly affected GPA in this study. "A regression analysis showed that an increase in absences by 10% resulted in a 0.2 drop in grade points." (p. 991)

So, how do we respond? Some of us will find in these the data the muscle to enforce strict attendance policies. Some of us might try making these data known to students and see if the facts themselves have any effect. Either way, this study begins to build a strong case for what we've long known intuitively.

Reference: David Kowalewski, Elizabeth Holstein, and Virginia Schneider, "The Validity of Selected Correlates of Unexcused Absences in a Four-Year Private College." ***Educational and Psychological Measurement*****, Vol. 49 (1989), pp. 985-991.**

A Note on Motivation

by Donald C. Streever, Pace University (NY)

As a teacher, I've come to several assumptions that underlie my approach to students. One is that most learning is self-learning. A second is that the responsibility for learning is that of the learner (me included). I also believe that experience is still the best teacher, hence, heavy reliance on experiential learning in my kit bag. A conviction that follows from those beliefs has to do with motivation: that motivation comes from within, period. And here I find myself often in heated discussions with my peers.

In order to articulate my view and to share it with students, I've written several versions of the following. At times I read it to classes; at other times I hand out copies for students to read. As with my colleagues, it tends to arouse discussion and controversy, which I value. But, at least my students know where I stand.

"I don't believe it is possible for anyone (leader, boss, teacher, preacher) to motivate any one else (follower, subordinate, student, parishioner). Inspire, maybe. Influence, possibly. Motivate? No!

"That's a conclusion I have come to from introspection and observation of others over two decades of serving as CEO of several companies, a decade of teaching undergraduates, and my interpretation of research by Herzberg, Maslow, and others. But almost everyday I read or hear that the job of a teacher is to motivate students, of a manager to motivate subordinates, of a leader to motivate followers. Ach! Ego trips, in my view. Motivation comes from within. And to think otherwise misplaces responsibility.

"I do believe a teacher, leader, etc. can create a climate ... in which whatever motivation exists in us can develop or be quashed.

"As a person in a power position and a power person as well, I may have the clout to turn you off through fear, intimidation, insult, and injury. Happily, I have no reason to do that. I would be flattered to find that some of what we do together turns you on. But that decision is yours; it's out of my control.

"What I can do, I believe, is to be an instrument in creating an environment of acceptance, trust, openness and safe risk-taking for us all. Still that won't motivate. It's only half of the suspension bridge extending out from my side of the river. I am motivated. I will come to our task prepared. I will be on time. I will be up-to-date. I will stretch my endowed and acquired capacities to serve our learning experience.

"I encourage you to do the same, to come prepared, push through, stretch out, extend yourself around, through, over your hurdles. Be involved, contribute, risk. Extend your half of the bridge. And with Grace we will be joined high over the river's center in new exciting discoveries."

(Aside to my colleagues: It is pleasantly humbling to discover my control is over *process*, not *outcomes*. Outcomes depend so much on others' decisions and uncontrollables that I might as well relax, trust the process, and hope for the best.)

A Contradiction in Teaching

To be a good teacher is to be caught in an eternal paradox. Good teaching, claims Peter Elbow in his book *Embracing Contraries*, stems from two conflicting responsibilities: we have an obligation to students, but we also have an obligation to knowledge and our intellectual communities.

Our loyalty to students makes us their ally. We invite them to join us as members of a community committed to learning. As advocates interested in their success, we assume they're capable of learning. And, we hope they're motivated. We try to design learning experiences (exams, papers, projects, etc.) that bring out their best — that enable them to master the materials so that they can rightfully belong to our learning communities.

But our commitment to knowledge and society requires us to be "guardians," "judges," or "bouncers": we must "discriminate, evaluate, test, grade, certify." (p. 143) We have standards to uphold. We have a responsibility to our discipline, college, and society to see that the students we certify really understand or can do what we teach, to see that the grades, credits, and degrees we grant have integrity.

To escape this conflict, Elbow maintains that teachers make peace with these contraries in one of three different ways. They become " 'hard' teachers, in whom loyalty to knowledge has won out; 'soft' teachers, in whom loyalty to students has won out; and middling, mostly dispirited teachers, who are sort of loyal to students and sort of loyal to knowledge ...." (p. 151) This "half commitment" can be deadly to life as a professor, since it denies any complete commitment to either of the two things teachers value most.

Is there another option? Are we doomed to be "hard" or "easy" for the duration of our careers?

"Theory of Paradox"

Elbow proposes a way through this predicament. The magic of "good" teachers is that they've actually immersed themselves in commitment to both students and knowledge, but they do not accept both obligations simultaneously. Good teachers adopt a "theory of paradox": they embrace both roles completely, but not at the same time. They alternate between them. And a focus on one commitment will naturally lead to its opposite: "extremity in one enhances extremity in the other in a positive, reinforcing fashion." (p. 152)

Elbow uses his own experience to illustrate. He establishes his role as a teacher committed to knowledge and excellence by clearly stating his requirements and standards for grades. The more he clarifies his commitment to knowledge, the easier it will be for him to become an ally dedicated to helping students.

When assigning homework or projects, we make clear our gatekeeper role by articulating explicitly our standards and criteria. We should provide examples of assignments that reflect those standards and criteria, to illustrate the excellence we demand.

Stressing these tough standards in the beginning makes the role switch to ally easier. "OK, now you know what I expect of you. You know the rules and I've made it clear I'm not going to bend them. But I am here to help you. I am committed to your success and will demonstrate that by making my expertise and experience available to you."

"One of the best ways to function as a coach is to role-play the enemy in a supportive setting." (p. 156) Give practice exams before the real ones. Read rough drafts and comment on them before the final papers are due. Actions like these are clearly those of an ally. They aid student efforts to achieve standards.

There is obviously no one right way to teach. Yet in order to teach well, the key may lie in finding some way to be loyal both to students and to knowledge. Elbow's theory of paradox may help. But it doesn't make things simple. It doesn't even erase the conflict between commitments. But it can help us understand the demands on teachers and can explain why we often feel pulled in two directions at once.

Reference: Peter Elbow, *Embracing Contraries* (Oxford: Oxford University Press, 1986). For a copy of Elbow's book, send $11.95 plus shipping and handling to: Oxford University Press, 200 Madison Ave., New York, NY 10016.

The Quest for Teaching Models

I remember early in my teaching career struggling with the question, "How should I teach?" When I first asked the question, it was straightforward. I didn't know if I should gesture, if I should use an overhead or films, what I should wear, what I should have my students call me. I didn't know if I should move around the room, sit on the desk, call on students.

It seemed to me there were a myriad of decisions to make. I remember feeling overwhelmed, but not by the existential implications of these questions, and not by the need for a heuristic with which to discover my educational philosophy. No, it was much more mundane. I was trying to figure out what I should do in class — how, in the very mechanical sense, I should teach.

At some point in the midst of my quandary it came to me, more intuitively than reflectively (as I think back on it), that I needed a model, someone to copy. I wouldn't have to make these decisions for myself but could simply do as the model did. Obviously I'd pick a model who was a good teacher. After all, that's what the decision-making anguish was about. I wanted to make the right decisions. I wanted to be a good teacher.

It made such good sense at the time. And I picked my model without hesitation. I would teach like Dominic LaRusso. He was like no one else I'd ever seen in the classroom. He had such style, such presence.

And what he did with the Socratic method .... He'd ask a question; you'd squeak a frightened, incoherent answer; he'd use it to ask you another question. You'd answer with a bit more confidence and he'd lead you along with yet another question. And lo and behold! Soon what issued from your mouth surprised even you, and Dominic would pronounce it good with a kiss tossed in your direction. You left his class a changed person, an intellectual with a promising future.

Yes, I would teach like Dominic taught and bask in a reputation just like he enjoyed. Students would speak of me with respect at graduation and later write books in my honor.

Idealism infects new teachers like fleas get to dogs during the summer. I tried to teach like Dominic. I remember the day I started. I remember the first incoherent answer a student gave and trying to figure out what sort of question would make order out of that chaos. I decided to be Dominic with another student. I did manage a follow-up question, but it led the student to conclude, "I don't understand what you're asking."

And I had problems with the style too. Dominic made big, bold movements in class. He took big steps and ended up towering over student in their seats. It surprised me how much students didn't like me standing at their desks, peering down at their notes.

I tried to be Dominic for several days, as I recall. Then I gave up. I remember feeling sad and blaming myself. It was *me*. I didn't have the skills. I'd never be a teacher like Dominic. I just didn't have it in me.

The question of suitability never crossed my mind. It never occurred to me that Dominic wasn't a good model for me. Even obvious facts like that he was Italian, macho, and beautiful missed my attention entirely.

Am I alone or do other new and old teachers wish for themselves a teaching style that can never be? We learn much from good teachers, to be sure. But if *we* are to be like *them*, *they* must be at least a little like *us*.

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The TEACHING PROFESSOR

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Unlimited Access to Information

"Imagine that your campus has the means for you and your students to locate, search, sort, copy and store in digital form anything that has ever been in print." (p. 67) How would that affect your teaching?

Faculty participants in a 1989 Forum on Teaching and Technology held at Earlham College (IN) tried to answer that question. A number of their responses appear in a recent publication, *Teaching and Technology: The Impact of Unlimited Information Access on Classroom Teaching*.

Philosophy professor Peter Suber begins his answer with the observation, "I am a computer enthusiast but, while I find this hypothetical future terribly exciting for research, I do not find it unambiguously good or exciting for teaching." (p. 67) He proceeds with a thoughtful list of advantages and disadvantages to teaching "in a blizzard of information."

The advantages are large, like the ability to assign reading regardless of whether or not the selection appears in print. "Without resort to Kinko's or its competitors, we could assemble a reading list of just the right fragments." (p. 67) The result would be greater flexibility in course and syllabus design.

Most faculty complain about how rarely students go to the library. It doesn't seem to be among their favorite haunts, but the video arcade is. Technology doesn't intimidate students. They see it as user-friendly and getting more that way.

"Cheap electronic access to information may have a leveling effect on colleges and universities. It cannot make a bad college good, but it can neutralize some of the advantages of a large library or large city." (p. 68) The leveling could affect both students and faculty, who will not need to select an institution because of its information resources. Relatedly, being geographically remote will no longer imply intellectual isolation. Students and faculty can enter other intellectual communities by virtue of electronic mail, bulletin boards, and conferences.

Low Points of High Tech

But there are disadvantages to reckon with as well. "While online texts will permit a new kind of close reading, with multiple windows and fast searches, I fear that an older kind of close reading will fade away .... Books have margins for writing in, personalizing, and appropriating. Printed text can be taken under a tree where there is no electricity and lingered over long after batteries would expire." (p. 69)

Plagiarism would be easier to perform and more difficult to detect by virtue of the fact that so much more information is at everyone's disposal. Imagine some entrepreneur of questionable scruples developing a data base devoted exclusively to term papers.

On that same note, what would prevent the proliferation of junk data bases? — "a difficult category to define, since one person's propaganda is another's writ and one person's scholarship is another person's ideology." (p. 71) But how will students with little educational experience discriminate between good and bad information? One stack of citations can look just as reassuring as another if you don't know the field. Imagine a "database on European history, with no giveaway title, that happens to be thick with articles denying that the holocaust occurred ...?" (p. 71)

As for his biggest worry, Suber fears that more and more students will come to confuse information with education. "It is possible that my worry is groundless, and that the advent of very wide, very cheap access to huge databases would put information in perspective and lead students to look for the wisdom to appraise and digest it."

But Suber writes on, to make a crucial point. "The ultimate question in education ... has never been access to information; it has always been wisdom or the capacity to judge information and build knowledge and action from it."

His conclusion: "Enhanced access to information is not hypothetical even if its extent and cost for any given near-future are unknown. It should cause teachers to reflect deeply on what they are trying to accomplish in the classroom .... We must educate students for intellectual autonomy, not discipleship, so they can navigate for themselves in the wilderness of information." (p. 74)

Reference: *Teaching and Technology: The Impact of Unlimited Information Access on Classroom Teaching* (Ann Arbor MI: Pierian Press, 1991). Order from: Earlham College Bookstore, Runyan Center, Richmond, IN 47374. Cost: $25 plus $2.50 shipping.

Encouraging Our Students

We often forget or underestimate how frightening our content and class activities can be to students. We can alleviate the unnecessary anxiety in many ways; some large, some small, some obvious, some unobtrusive. Notice how Daniel Haytin of Sonoma State U. does it in a handout that, of all things, describes how the professor once shared the very same fear.

(class handout)

Oral Presentation

Research has found that one of the most common fears in our society is "speaking in public." As an undergraduate student I would drop (if at all possible) any class requiring an oral presentation. Twenty-five years later, I still fear public speaking; my initial reaction is still one of anxiety. The only difference is that after years of public speaking experience the intensity of the fear is less severe. I am sure my experience is similar to many of yours. Anxieties, fears, and insecurities are often exacerbated by avoidance and conversely diminished (and overcome) by confronting the behavior which is stressful. Try to view your oral presentation in this class as an opportunity to overcome self-limiting anxieties and to develop academically and personally.

I guarantee that I will do everything I can to shape the atmosphere in the classroom so that it will be extremely warm, friendly, non-threatening, and supportive. Through participation in cooperative learning methods prior to your oral presentation, you will feel your fellow students are supportive "colleagues" and not competitors or antagonists. Some of you may actually enjoy the experience, as many previous students attest: "I *never* talked in front of any class before!" "It was great. I learned so much from my own presentation and others ...."●

Computer Techniques for Giving Students Feedback

The discussion of feedback in our August/September 1991 issue prompted Roy Licklider of Rutgers U. (NJ) to share his technique for using a computer to help grade the papers and exams in his political sciences courses.

"This particular system works with a word processing program which will 'do windows,' that is, will allow you to have two separate files available at the same time. The first is the paper file, which includes both some "boilerplate" (the course name and number, my name, the semester, and a paragraph explaining some terms used in grading) and the particular comments for this student. The second file consists of comments which I have made more than once on other students' papers; when grading 40 or so papers on the same topic, the same mistakes appear again and again.

"The actual grading process involves having both files on the screen. After typing in the student's name on the first screen, I start reading the paper itself. Minor problems are noted, as usual, by marks or comments on the paper itself (some of these conventions are explained in the boilerplate, like the difference between *unclear* and *awkward*). When I want to make a more substantial comment, I put a number on the paper and write the comment itself on the student form at the corresponding number. Often I can lift a paragraph out of the comments file, changing it as necessary to fit the particular problem of this student; the student, thus, gets a really substantial comment with just a few keystrokes.

"Alternatively, if it's a really unique problem, I just type the comment in. I keep improving the standard comments as I grade more papers, making those changes in the comments file. Other things can be added — I have a standard form for referring students to a Writing Center, for example, which is yet another file and which can easily be added.

"This approach works very well for me because my handwriting is awful, my typing isn't bad, I like to make extended comments on papers, and I don't mind grading exclusively at my computer. I don't think that I save much time, on balance, from grading by hand, but students get much more extensive comments in readable form; two pages of single-spaced comments are neither unusual nor particularly difficult. Students like it too — and they don't even know how bad my handwriting is."●

The
TEACHING
PROFESSOR

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Effective Instruction: The Quest to Define It at Santa Fe Community College

The process began in 1985, went through various research steps, committee structures, reviews, and rejections, and finally culminated in the year-long work of a faculty task force. The result is a concise, practical handout that identifies, via six criteria, the outcome of effective instruction — "At Santa Fe Community College, effective teaching supports the fundamental goal of student success."

"Using these criteria as a guide," the handout continues, "you are encouraged to develop your own innovative teaching style to fit your subject, students, goals, environments, and course objectives." The handout is given to all new faculty, both full- and part-time. It's what shapes professional development activities and faculty evaluations. However, Bea Davis, Director of Staff and Organizational Development, quickly points out that it's the criteria that drive the evaluation, not the reverse. "The criteria come first. They say to everyone who teaches at this college, 'Here's what we care about.' "

Initiated by Davis and full-time instructor Lee Cartwright, the attempt to define effective instruction at SFCC was a faculty-based project from start to finish. They formed the ad hoc committee that selected and proposed the six criteria to the rest of the faculty. They gathered evaluation instruments from other institutions and culled them in search of items to refine the categories.

> *"Using these criteria as a guide, you are encouraged to develop your own innovative teaching style to fit your subject, students, goals, environments, and course objectives."*

And now they're among its strongest advocates. "I'm really pleased with the way the criteria are being used here," reports faculty member Sarah Vadez. John Garcia, another full-time faculty member talks about how he and other members of the ad hoc committee wanted "something that just wasn't on a piece of paper for a student to mark." He, too, takes pride in the criteria, seeing them as a constructive statement of instructional effectiveness that helps faculty to respond to evaluation activities more positively.

Effective Teaching Criteria

1. Critical Thinking

Helping students approach the information from a variety of perspectives.

Helping students understand how their cultural conditioning and biases influence their ability to use the course content.

Having students compare, analyze, synthesize, and/or apply the information covered in the course.

Providing opportunities for students to think and act independently and take personal responsibility for their choices.

Asking questions that stimulate critical evaluation and application of the course content and providing sufficient time for students to respond.

Using writing and other activities that stimulate critical-skill development.

Encouraging students to actively evaluate the course content.

2. Subject Knowledge

Instructors need to have a thorough knowledge of the material they present. This includes:

Being current on research and developments in the field.

Using contemporary examples.

Being aware of trends in the field over time.

Admitting when you do not know the answer to student questions and researching (or having students explore) answers outside of class as necessary.

3. Communication

Information should be shared clearly and concisely with both verbal and nonverbal cues that support student learning. This includes:

Communicating in a professional manner at a level that students will understand.

Listening and effectively responding to students.

Providing clear explanations (supported in writing) of the grading standards, homework procedures, attendance requirements, and other class practices.

Using appropriate non-verbal cues such as voice tone, gestures, movement, facial expressions, and body language.
Helping students appreciate the importance and relevance of course activities and differentiate between concepts of greater and lesser importance.
Attending to whether or not students are comprehending the information being presented.
Informing students of college activities as necessary.

4. Climate

Effective teaching involves establishing a classroom environment that encourages and supports student learning. This includes:
Creating a non-threatening atmosphere.
Projecting enthusiasm for the subject matter and teaching.
Demonstrating a genuine interest in students by
  — learning their names,
  — recognizing their successes,
  — being fair and impartial.
Responding to the special needs of non-traditional students.
Providing opportunities for students to express themselves and explore their understanding of the material.
Using the physical environment (such as seating arrangement and lighting) to enhance student learning.
Being available outside of class.

5. Management

It is important to use limited class time to the fullest. This includes:
Coming to class prepared and well-organized.
Starting and ending class on time.
Handling routine tasks efficiently (such as taking attendance and returning papers).
Beginning lessons with an overview of what will be covered and ending with a clear summary.
Running the class at an appropriate pace.
Keeping students "on task."
Dealing with difficult students in private when possible.

6. Teaching Methods

Student learning is enhanced by using meaningful and varied teaching strategies. This includes:
Establishing high expectations that are reasonable.
Using techniques that arouse and maintain student interest.
Addressing the multiple learning styles of students:
  Auditory (e.g. discussions, questions, lectures).
  Kinesthetic (e.g. practice, hands-on activities, role playing, simulations, case studies).
  Visual (e.g. writing, demonstrations, displaying information on blackboards and overheads, videotapes).
Introducing learning activities in a logical sequence.
Mixing independent and group work.
Employing different materials, equipment, and media.
Requiring relevant assignments and examinations.
Returning student work promptly with meaningful feedback.
Encouraging the use of external resources (e.g. libraries, museums, interviews) when appropriate.
Referring students to college support services (e.g. tutoring, career counseling, workshops) when appropriate.

The criteria is reprinted here with the permission of Santa Fe Community College. Requests to reprint it further should be directed to Bea Davis, Director of Staff and Organizational Development, Santa Fe Community College, P. O. Box 4187, Santa Fe, NM 87502.

"Effective teaching involves establishing a classroom environment that encourages and supports student learning.

This includes creating a non-threatening atmosphere, projecting enthusiasm for the subject matter and for teaching, and demonstrating a genuine interest in students."

Student Self-Assessment in Higher Education

Most of the time teachers assess students. Some among us, most notably David Boud in *Developing Student Autonomy in Learning*, advocate that students be given opportunities to assess their own learning.

His argument goes something like this: When students enter the world of work, they'll be required to pass judgment on their own work, and their ability to do so with at least some degree of accuracy will contribute to their job success. He also contends that very few of us give students opportunities for self-assessment and even fewer of us devote energy to developing self-assessment skills.

Most faculty are reluctant to have students evaluate their own work, for fear that overly grade-conscious students will bolster their standing in the class rather than use the opportunity to honestly assess their mastery of the material.

Boud and colleague Nancy Falchikov decided to look at the research on student self-assessment to see what sort of correspondence existed between the grades students gave themselves and those given by faculty. They completed both a quantitative and qualitative assessment of research in this area (cited below) and came to similar conclusions in each.

The quantitative results, reported in their meta-analysis, show the extent of correspondence in several different ways. Effect sizes varied from -0.62 to 1.42, with the mean effect size being 0.42, which is considered a medium effect size. Said another way, "This indicates that the average self-marker graded higher than approximately 68% of faculty markers." (p. 420) Correlations between teacher and student marks vary from -0.05 to 0.82, with a mean correlation of 0.39, which is a medium value correlation. Percentages of self-assessors whose grades agree with those of faculty markers vary from 33% to 99.4%, with the average for this collection of studies being 64.1%, again falling in the medium proportion range.

Students Give Better Grades

So, faculty have the right to be concerned about students overrating their performance. However, the case isn't quite that simple.

The ratings experienced students gave their work matched much more closely the marks assigned by their instructors. Interestingly, the close correspondence was related to course level, not just number of years in college. In other words, "Senior students taking introductory courses appear not to self-assess significantly better than do first-year students. Students in advanced courses, however, where self-assessment appears to be particularly accurate, are also often students classified as 'senior.' Thus, we must conclude that expertise within a particular field is more influential than is seniority or duration of enrollment." (p.425)

Falchikov and Boud also found that studies of students and faculty in science courses appeared to produce more accurate self-assessment than those from other areas of study.

Clearly this body of research does not mandate a wholesale, full-scale use of self-assessment strategies, but it does support their use at some points in the curriculum. Boud and Falchikov also point out that not all the important research questions about self-assessment have yet been answered.

For example, "no conclusions could be drawn about the improvement in self-assessment ability over time or with practice .... Similarly, the question of possible gender differences in self-assessment ability [remains] unanswered." (p. 396)

One final observation returns us to the opening argument. "Self-assessment can be a valuable learning activity, even in the absence of significant agreement between student and teacher, and can provide potent feedback to the student both about learning and educational and professional standards." (p. 427)

References:

David J. Boud and Nancy Falchikov. "Quantitative Studies of Self-Assessment in Higher Education: A Critical Analysis of Findings." ***Higher Education*****, 18 (1989), 529-549.**

Nancy Falchikov and David Boud. "Student Self-Assessment in Higher Education: A Meta-Analysis." ***Review of Educational Research*****, *59:4* (1989), 395-430.**

David Boud (ed). ***Developing Student Autonomy in Learning*****. London: Kogan Page, 1981.**

◆

Signs of Success

by Marc A. Olshan, Alfred U. (NY)

The desire to teach well can be a useful goad to superior classroom performance. It can also be a source of unnecessary apprehension. We may end up reviewing each day's classes, searching for confirmation of our abilities, like Puritans anxiously looking for signs of salvation. How many participated? Did they laugh at the right times? Was the discussion animated? But evaluating one's own teaching is probably the most subjective of endeavors. Given sufficient anxiety, any student behavior can be interpreted as a sign of skillful pedagogy.

Take, for instance, a student's temporary loss of consciousness in the classroom. When this happens in one of my own classes, I attribute it to the overly intense concentration of a student's mental faculties on the acquisition of knowledge. I choose to call this phenomenon "the learning rapture." The eyelids are three-quarters closed in scholarly concentration. With each breath the head nods progressively forward. Just when it seems like the student is so out of plumb that face must smash into desk, the head snaps back as if slapped by some unseen inspirational force. This maneuver is almost always followed by the sudden return of awareness, usually signified by an embarrassed grin or, as I choose to interpret it, a beatific smile of enlightenment.

In another expression of the learning rapture, the student's head tilts slowly backward. The eyeballs roll up into the skull, leaving the whites showing in one hallmark of the ecstatic learning experience. Often the mouth falls open in the classic "agape" or "love of learning" position. This is the most impressive, even frightening, expression of the rapture. At times breathing may cease altogether and the entire class waits in awed silence for its resumption. This respirational hiatus usually ends abruptly with staccato snorts of revival. The student, still half-dazed, then slowly surveys the classroom and sometimes, in a touching confirmation of dedication to learning, may even ask, "Did I miss anything important?"

It is tempting to agonize over these behaviors, to take responsibility for them and for everything else in the classroom. But such well-intentioned hubris rests on the faulty assumptions that: (1) our teaching is of uniform and central importance to all students at all times, and (2) we are in a position to accurately assess just what is the impact of our teaching. By claiming that such is not the case I don't intend to diminish the teaching profession. It is difficult to imagine a more demanding or important task. One need not, however, be forever swinging between elation and despair depending on what happened, or didn't happen, in this morning's class.

Success Slow to Show

The real indicator of success, and the real satisfaction, comes much later when the former student, now several years on the far side of graduation, returns to campus and asks, "Remember when you told us about ...?" He or she then enthusiastically recounts some insight that has proved to be particularly valuable. But on the day this insight was passed on, one may not have seen even a ripple of interest. In fact, its future relevance was most likely then unknown to student and teacher alike.

Sometimes, happily, the payoff comes sooner. A student makes good use of a previously introduced concept to decipher a family situation or a current event. Or one hears from a colleague that in his or her class a student offered an insight identified as coming from a course one taught last semester. But such satisfactions have to be treated as windfalls. Teaching can't be counted on to pay regular affective dividends.

The only reasonable course of action is to steer between the Scylla of self-recrimination and the Charybdis of self-congratulation. A student's falling asleep in class no more constitutes an indictment of teaching ability than "the learning rapture" constitutes its affirmation. When signs of success and their interpretation become ends in themselves, teaching suffers. Our objective should be to aim for a level of competence which is its own reward. Such an objective is neither privatistic nor self-indulgent. It is exactly such a stance that most effectively conveys to students a sense that the material is important and that the enterprise merits their interest and effort. ◆

Why Do We Fear the "I Word"?

Do faculty want to improve their teaching? Yes.

You don't agree? I'll admit in many cases the desire is more *covert* than *overt*, meaning that your typical "old" faculty member does not respond positively to the question, "Would you like to improve your teaching?" Rather, the response is defensive. "Why? Did somebody tell you I needed to improve?" Or, the response is cynical. "Why should I? Nobody around here cares about good teaching anyway."

However, there are two other questions you can ask faculty, the answers to which confirm my belief that faculty are interested in teaching more effectively. Ask any instructor, "Do you want to teach badly?" The answer is an emphatic "No!" In fact, the question makes us angry because it is so stupid. We've all experienced bad days in class and know how hard we work to avoid them. Freud's pleasure/pain principle applies here and gives us a place to start with most faculty.

But there's a second question, the answer to which signifies a more positive, albeit tacit, endorsement of the improvement agenda. "Are you interested in how much and how well students learn your content?" Once again faculty respond with a resounding "Yes!" Of course we care about student learning. That's what attracted most of us to teaching. As soon as we begin to talk about how students learn and retain content, we're discussing theories, research, and practices with large instructional implications. We're talking about ways of changing teaching so that it better accommodates what we know about student learning.

You'll probably say that these in fact are back doors. I agree, but back doors lead inside just as surely as front doors. However, I'd rather enter from the front.

As I tried to forward the improvement agenda at my own institution, I quickly learned that what you call it does matter. I argued with the administrator who crafted both the name and description of the unit I directed. We were interested in improving instruction: why didn't we come clean and admit it? Faculty could see through the euphemism "development." Couldn't we just be an instructional improvement program? He didn't think so — and I soon discovered why.

According to Webster, when we "improve" we raise the value or quality of something. However, what the dictionary says and what people feel a word implies do not always agree. We project onto the word "improvement" the sense of "deficiency." It's a connotation, not a denotation.

I learned about the improvement-deficiency connection when I offered a workshop on "improving lectures"

— and very few people showed up. No, institutional efforts to improve teaching cannot model themselves on programs like Alcoholic Anonymous, where participants must admit they have a problem before they can get help.

What eludes me is a clear sense of where the line is between an honest portrayal of efforts to improve and the need to motivate faculty participation by describing those efforts as something other than what they in fact are. I'd like for us to be able to say the "improve" word to faculty and have them understand that *all* faculty can improve and that most should. Given that so many of us teaching at the postsecondary level have no formal preparation, I don't see why the fact we need to need improve should come as such a shock. Moreover, if we understood that teaching better results in fewer bad days in class *and* greater learning for students, it seems to me we ought to be openly, instead of clandestinely, interested in improving. ◆

College Students Need Nurturing Too

by Leona Nicolas Welch, Diablo Valley College (CA)

As a teacher, I enjoy a marvelous and unique privilege which often keeps me in touch with past students. I have taught junior high, high school, and now college in pretty much the same community. Even more special is the fact that from time to time one of my past students shows up in my college English class. In two instances, I have even had the joy of teaching individuals in junior high, in high school, and again in the community college.

Naturally enough, these students almost always ask me the exact same question (since I taught high school just prior to coming to the college) — *Do you like teaching college better than high school?* My response is usually (a very safe), "Oh, you know me: I just love teaching, period!" At times I have responded more jokingly, "College students have their problems. They can be big babies, too." We laugh, the student walks away, and I am left realizing how much truth that "joke" contains.

Lots of things change at college — the work load, the scheduling process, course choices, and the sense that students are much more on their own in a much more treacherous place. Moreover, somebody has succeeded at making most college students believe that nobody cares about their worries, their fears, or their problems.

One of the favorite lines of admonition used by senior high teachers when shaping their students up for college is "You'll be on your own; you'll swim or drown." While it is easy to understand the sincere intentions of the teacher who is determined that those leaving her "make it," it is clear to see how this can give some students a real sense of insecurity.

It is worrisome that there are so many students who pass from classroom to classroom, or just putter their way unobtrusively from course to course, afraid of using the "H word." *"Help"* is a word that too many college students feel ashamed to use. *"You're on your own"* echoes through their heads, and their heads become buried beneath the books from which they cannot properly decipher knowledge.

I think of learning this way:

After too many days of
"learning"
I stopped long enough
to simply LISTEN,
It was then I found that
LEARNING is
that soft
quiet thump
beneath the
fall
of
a
leaf.

A very common thread connecting high school to college — and to all other levels of learning, I declare without a doubt, is the need to be encouraged, led, helped. *College students need nurturing too,* and no one can hear a quiet thump in the din of confusion and fear.

What are they afraid of? Here's the list: failure, unacceptance, embarrassment, peer and family pressure, and (from a more practical standpoint) no money, no car, no A's or B's, big test, no friends.

Ultimately, the biggest, baddest word of all is the word, "wrong." No one wants to be *wrong*, especially in the presence of peers.

How to Help Our Students

But there is a way we can help them. First, we must create a *welcoming* classroom. True, students need to know that the teacher is, after all, in control. But the instructor who believes that *being in control* and *controlling* are synonyms begins with a problem.

There are things we can actually open our mouths and say to our students to attack phobias and put students at ease. Some of my first-day favorites are:

- *You are welcome.* I'm glad you're here.
- *I am passionately in love with teaching* (and it's OK for them to love learning).
- *In every student there is a teacher.* (This lets them know that I will appreciate their efforts).
- The ultimate for me: *This is a mistake-making place.* (At the end of this pronouncement, I can hear the sighs of relief and see the faces relax.)

Students come in a variety of wrappings. Some lack skills, yet have ambition. Some lack ambition, but come loaded with skills. Some talk a lot, while many talk very little. Others don't talk at all. There are those who sweat it out and others who swear it out. There's the know-it-all-but-can't-say-it, and the say-it-all-but-don't-know-it. And the list goes on ....

But it ends with one thing all college students share: they need nurturing. ◆

Success in College: Experience Still Not Equal for All

Significant strides have been taken in the last 25 years to ensure equal access to postsecondary education for all Americans. In 1991 the National Center for Education Statistics reported that in 1988 approximately 61% of white students, 45% of African-Americans, and 57% of Latino high school graduates enrolled in postsecondary education within a year of receiving their high school diplomas.

However, after reviewing a wide variety of research on minority student performance in college, S.L. Mow and M.T. Nettles conclude, "On average, non-Asian minority students have lower college grade point averages, make slower rates of progress through the curriculum, receive lower outcomes tests scores, are less likely to attend graduate school, receive lower graduate admissions test scores, are offered few research assistantships for graduate school, and have fewer opportunities in the labor market upon completing college."

Reference: S.L. Mow and M.T. Nettles, "Minority Student Access to and Persistence and Performance in College: A Review of the Trends and Research Literature." In J. Smart,ed., *The Handbook of Higher Education* (New York: Agathon Press, 1990), pp. 35-105.

Do We Make Our Students More Dependent?

Students are dependent learners — or at least they have a strong tendency in that direction. We know that. We've written about it in this newsletter. But we haven't yet explored the accusation that William Kahnweiler raises: our relationships with students may be fostering, indeed nurturing their dependency.

Kahnweiler thinks this happens because the teacher-student relationship "mirrors" that of manager and employee, to some degree even that of parent and child. "This top-down relationship can set the stage for young adults (and even older ones) to approach a professor as if they were helpless children." (p. 34)

How do you know if your students are adopting a dependent role? Kahnweiler offers "telltale signs": students who are unwilling to challenge our viewpoints, even when we encourage them to do so; students who refer to "your class," "your assignment," "your test"; students who crave approval and try to find out exactly what *you* want.

It's hard to turn our backs when students ask for guidance. "Even something as seemingly innocuous as wondering how long a paper should be can easily hook our nurturing side and [desire to] 'help' the questioner by giving a direct answer." (p. 36) In fact, the point is not that the question should never be answered. Rather, at issue is our own awareness of how easily the power and influence we have over students can by used by them, as well as us, to diminish important learning outcomes.

Students need to become autonomous, independent learners, confident of their own abilities to assess the nature of the learning task and take suitable action. Kahnweiler offers some helpful advice on breaking or at least arresting their tendency for dependency.

Steps Toward Responsibility

First, *stress similarities*. Said another way, stress your teacher-as-learner roles. You don't have all the answers, know all there is to know and may, like them, need to say, "I don't know." This makes the teacher-student relationship more egalitarian and thereby less susceptible to dependency.

Second, *ask students for their 'why' and 'what.'* Why are they in the course? What do they hope to learn? What kind of experience do they want to have? How do they plan to get the grade they desire? Discussing questions like these makes it more difficult for students to orient themselves to courses by trying to figure out what the prof wants. These questions and their answers reinforce the idea that students are in fact responsible for course outcomes.

Next, *allow them to decide how*. The idea here is, to whatever degree possible, give students choices; give them some say in how they will meet course requirements. You have to be fair and consistent with everyone, but as Kahnweiler points out, "The objectives for each student are the same; how they get there may differ." (p. 38)

Finally, *be real. Praise their efforts*. If you say self-directed learning is your goal, prove it in your actions. Reinforce students when they take some initiative. You may not want to praise the position taken, but you can respond positively to their efforts to take a stand.

Kahnweiler concludes, "If an important part of our mission in higher education is to prepare individuals to use good judgment and make decent decisions beyond the confines of the campus, the issue is how to do that most effectively .... One way to address it is to ask ourselves if we will strengthen dependent relationships with students or detach ourselves by cutting the cord? It is our choice." (p. 40)

Reference: William M. Kahnweiler. "Professor-Student Relationships: Nurturing Autonomy or Dependency." *The Journal of Professional Studies*, Spring/Summer 1991, pp. 32-41.

Ed.'s note: This entire issue of JPS *looks at common problems we see in students with an "eye to our role in creating or exacerbating them." It's fascinating, at times incriminating, reading.*

There are three kinds of teachers: those you listen to, those you can't listen to, and those you can't help listening to.

— Anonymous